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Access to Education in Rural and Urban Primary (K-6) Schools in Jamaica during COVID-19

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Abstract: The COVID-19 pandemic imposed a paradigm shift on education delivery worldwide. In response to the pandemic, the government of Jamaica mobilised strategies to ensure that the nation was protected while continuing the education of the nation's children. One of the strategies was to implement remote teaching and learning. Online teaching and learning created challenges, especially for students from rural and marginalised communities. This research explored the experiences of accessing education in Jamaica's rural and urban primary (K-6) schools during the pandemic. Researchers aimed to answer the questions: To what extent has COVID-19 impacted access to continued education in your school? (b) How has the state's intervention facilitated continued education during COVID-19? (c) To what extent do the qualitative findings converge with the quantitative results? Mixed-method research was employed for data collection and analysis. Purposeful sampling was used to select principals, teachers, and parents for this study. The findings of the study provided insights into how COVID-19 affected students' access and, the effectiveness of the government's response to continuing education online. Participants' contributions informed recommendations to the government on students' access to education during the onset of the pandemic in 2020, for the periods March to July and September to December.

Keywords: *Access to education, COVID-19, Jamaica; rural and urban primary schools.*

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Introduction

The United Nations Educational, Scientific and Cultural Organization (UNESCO) declared that nearly 1.5 billion students worldwide are affected by COVID-19 (UNESCO, 2021). "COVID-19 is an infectious disease caused by a newly discovered coronavirus" (World Health Organization, 2020), was first discovered in China and later resulted in a pandemic. On March 10, 2020, Jamaica confirmed its first imported case of COVID-19 from the United Kingdom and its first death a week later. This resulted in the immediate mobilisation of strategies by the government to ensure protection from any impending threats posed by the virus. One of the strategies was to close schools and institute online teaching and learning for two weeks, effective March 14, 2020. This closure was a precautionary measure to ensure the safety of staff, students, and the nation. However, schools were subsequently closed for the remainder of the academic year for K-6 students.

With limited or no access to smart devices and online platforms or television – which facilitated scheduled delivery of educational programmes, the sudden shift to online learning undermined inclusivity for students. This shift to online teaching and learning hindered the teaching-learning process; and exposed other challenges for students, especially those from rural and marginalised communities. Considering the challenges associated with COVID-19, this research sought to explore the experiences of students' continued access to education in rural and urban primary (K-6) schools in Jamaica during the pandemic.

A fundamental principle of online learning is that it "offers numerous possibilities to practice educational inclusivity. It can reach an unlimited number of students from anywhere, at any time" (Clow & Kolomitro, 2018, para.1). However, access to the internet to facilitate online learning is not universal in a developing society. Consequently, students without access to the internet are disadvantaged and more likely to fall behind. The World Economic Forum (WEF) noted that more than 50% of the world's population does not have access to the internet (Luxton, 2016). More specifically, 30% of the Jamaican people have no internet access (Patterson, 2020). Undoubtedly, the shift to online learning challenged the principle of inclusivity among students in Jamaica. There was limited access to online platforms, smart devices, or

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television where scheduled educational programmes were delivered. According to the United Nations (2020), "the most vulnerable learners are also among those who have poor digital skills and the least access to the hardware and connectivity required for distance learning solutions implemented during school closures" (p. 8), which diminished their access to education.

Theoretical & Conceptual Framework

Access to education is a fundamental inherent right for all Jamaican children. In speaking to the importance of this right, Tomaševski (2001) advanced the 4-A framework, which posits that this right is fulfilled when measures are in place to ensure that education is available, accessible, acceptable, and adaptable for all. In the framework, availability speaks to the government's mandate to fund education and ensure that systems are in place for its delivery. Access speaks to the government's obligation to ensure that all children in the compulsory age range have access to education. Conversely, acceptability refers to the quality of education offered, "thus urging the government to ensure that the education which is available and accessible is of good quality" (Tomaševski, 2001, p. 13). Finally, adaptability addresses the need for education to adapt to meet the unique needs of different constituents in the educational landscape - for instance, meeting the needs of students with disabilities. Succinctly, education should continue to be available, accessible, adaptable, and acceptable for all students.

However, given the effects of the pandemic on the education system, the researchers used the general systems theory as well as social exclusion/inclusion and inequality theories to provide the foundation for examining students' continued access to education, as highlighted in the conceptual framework in figure 1. The general systems theory was used to assess whether schools met their objectives within the Jamaican economy as an open system. In applying the social exclusion/inclusion and inequality theories, the researchers sought to understand marginalisation issues in students' online education experience and the interventions employed by the state to address them.

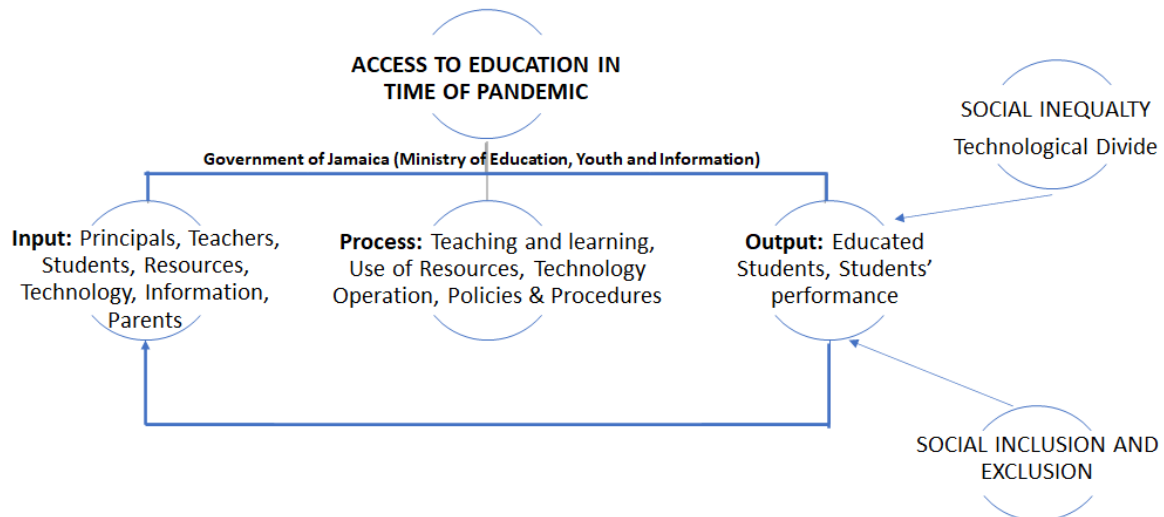


Figure 1. Conceptual Framework

Methodology

Research Design

The researchers used an explanatory sequential mixed-method research design (Creswell & Plano Clark, 2018; Hesse-Biber et al., 2015) to assess the research objectives. The approach allowed for the data to be collected in two phases, with the quantitative data collected in phase one and the qualitative in phase two (Creswell & Plano Clark, 2018). The researchers used a qualitatively dominant crossover design (Frels & Onwuegbuzie, 2013) from the constructivist perspective. This approach was considered appropriate as we collected multiple subjective views and comprehensive information (Hesse-Biber et al., 2015).

The following three research questions guided the research:

- RQ1. To what extent has COVID-19 impacted access to continued education in your school?
- RQ2. How has the state's intervention facilitated continued education during COVID-19?
- RQ3. To what extent do the qualitative findings converge with the quantitative results?

Sample

The research sample groups were purposefully selected. The research population comprised 150 participants, divided into six (6) principals, thirty-six (36) teachers and one hundred and eight (108) parents. Purposeful sampling was appropriate given the availability, location, time, and access to participants (Merriam & Tisdell, 2015; Mertens, 2010). The research sites were located across Jamaica, with one urban and one rural school selected from each of the three counties. Table 1 provides an overview of the research sites.

Table 1. Research Sites

County	Location	School	Student Enrollment	Teaching and administrative staff	Classroom structure	School community
Cornwall	Urban	A	462	18	Single-storey building. Classrooms separated by chalkboards	Farming, female-headed mainly, number of high school dropout parents
	Rural	B	185	9	Single-storey annexe housing infant department and six grades housed in a two-storied building	Fishing and subsistence farming, nuclear and extended family structure
Middlesex	Urban	C	395	19 teachers and one guidance counsellor	The three-story building housing 14 classrooms; two grades 2 to 4, three grades 5, four grade six and 2 Special education Units	Female-headed, single-parent households
	Rural	D	185	8	Single-story building with three halls divided by a chalkboard to demarcate six classrooms	Extended family households, a farming community
Surrey	Urban	E	738	45 inclusive of 9 caregivers, principal, and vice-principals	Three buildings. Smaller building houses infant to grade 2, larger building houses grades 3-6; another building house a Special Education Unit	The special education Unit caters to students with physical challenges. Extended or single families; few male parents actively participate in child's welfare
	Rural	F	346	19	15 classrooms for grades two to six and a Special Education Unit	The majority of parents are unemployed. Others engaged in various other professions, including nursing. Several students heavily on Programme of Advancement Through Health and Education

Ethical Approval

Approval to conduct the research was granted by the University of the West Indies Mona Campus Research Ethics Committee. The proposal was approved November 4, 2020, under ethics certificate ECP 24, 20/21.

Data Collection and Analysis

Data collection was conducted in two phases. The research team developed a survey consisting of demographic information on students' ability to continue education and government measures to respond to the closure of schools due to the pandemic for the periods March-July and September-November 2020. Surveys were made available online from December 2020 to January 2021 through SurveyMonkey. Face-to-face administration was carried out in January 2021 for those parents unable to access the survey online. Each instrument administered to principals, teachers and parents comprised 33 items.

Survey data were exported into the Statistical Package for the Social Sciences (SPSS) for analysis. Reliability analysis was conducted to check the internal consistency of the items on each of the survey instruments. All items showed acceptable reliability of 0.6 and above (Pallant, 2001) as depicted in Table 2.

Table 2. Reliability Analysis Scale

Survey Instrument	States Intervention Scale	Impact of COVID-19 on Access to Education Scale				
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of items
Parents	.873	.878	22	.705	.743	24
Teachers	.859	.860	22	.615	.611	20
Principals	.600	.553	22	.744	.744	20

Descriptive statistics were generated. Findings from the quantitative phase were used to inform the development of the questions asked in six interviews with principals, as well as three teachers' and three parents' focus groups for phase two. Principals were asked to check for the accuracy of the data at the end of the data collection process. The process of member checking of the interviews allowed for corrections and clarifications. Additionally, the researchers, at the end of each teachers' and parents' focus group discussions, provided an overview of the major points discussed to allow for any clarifications and corrections from the participants. The transcribed discussions with participants were coded using NVivo; significant themes were identified from the coding process and contributed to the analysis and discussion of this study. The findings of both phases were integrated to determine how the results converged or diverged at the final interpretation stage using a joint display (McCrudden et al., 2021).

Results

Survey

Table 3 provides participants' perceptions of whether the frequency of absence among students/children changed due to online learning and teaching. The Table shows that principals and teachers believed that there was an increase in students' absence from classes since the shift to online learning. More than 50% of principals and teachers held this view for both periods. However, parents had a counter perception where they indicated there was no increased absence from classes for their children during the March to November period.

Table 3. Distribution of Views on Increased Student Absence

	Principals		Teachers		Parents	
	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov
Disagree	33.3%	33.3%	6%	18.2%	85.2%	86.3%
Neutral			18.2%	21%	3.2%	2%
Agree	66.7%	66.6%	75.7%	60%	11.6%	11.8%
N	6	6	33	33	95	102

Notably, 45.4% (see Table 3) of rural teachers noted increased absence among their student population for the March to July period. For the September to November period, the percentage declined to 39.4%.

Table 4 provides perception data from each group on whether students continued their education in light of the shift to online teaching and learning. All principals (for both periods) and most teachers believed a significant proportion of children could not continue their education since the implementation of online teaching and learning. For March

to July, 84.8% of the teachers did not agree with the statement – all children were able to continue their education. This belief was held by most teachers (69.7%) in the September to November period as well.

Table 4. Distribution of Views on Students' Ability to Continue Their Education

	Principals		Teachers		Parents	
	Mar -Jul	Sept -	Mar -Jul	Sept -	Mar -Jul	Sept -
Disagree	100%	100%	84.8%	69.7%	13.8%	7.8%
Neutral	0%	0%	6.1%	12.1%	10.6%	3.9%
Agree	0%	0%	9.1%	18.2%	75.5%	88.3%
N	6	6	33	33	94	102

On the other hand, parents believed that their children could continue their education online. As seen in Table 4 most parents surveyed over both periods (March to July – 75.5% and September to November 88.3%) held this view. Disaggregation of the data indicated that parents who agreed that their children education continued online revealed that 37% had children attending rural schools compared to 34% of the parents who had children attending urban schools (for March to July). While for September to November there was a slight increase reflecting 46% and 42% of the parents had children attending rural and urban schools respectively.

Principals and teachers expressed that students' grades at the end of the academic year were inconsistent with their performance before the pandemic. For March to July, 56.7% of principals and 63.7% of teachers disagreed with the statement - students' grades at the end of the academic year were consistent with their performance in the previous terms, as captured in Table 5. While in September to November, 83.4% of principals and 60.5% of teachers agreed with the statement.

Table 5. Distribution of Views on Students' Grades

	Principals		Teachers		Parents	
	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov
Disagree	56.7%	83.4%	63.6%	60.5%	27.4%	26.7%
Neutral	16.7%	0%	30.3%	39.4%	16.8%	15.8%
Agree	16.7%	16.7%	6%	0%	55.8%	57.4%
N	6	6	33	33	94	102

Parents' views contrasted those of principals and teachers. Most parents perceived their children grades as consistent with pre-pandemic achievements. For the March to July and September to November periods, 55.8% and 57.4% (Table 5) of parents expressed that their child(ren) grades were consistent with previous terms at the end of the academic year.

Counselling support (see Table 6) was one of the interventions implemented by the state to foster the continuation of education. Counselling support was provided to assist teachers and bolster their coping mechanisms during the pandemic. In assessing the adequacy of this intervention, both parents and principals felt it was adequate while teachers believed it was inadequate. In March to July, 50% of principals perceived counselling support to be satisfactory, which rose to 66% for September to November. Contrastingly, for March to July, 60% of teachers felt counselling support provided were inadequate. There was a decline in perceptions for September to November, but 41% of teachers still had this view. Of the teachers who perceived this intervention inadequate, 36% were from rural schools (March to July).

Table 6. Distribution of Views on Adequacy of Counselling Support

	Principals		Teachers		Parents	
	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov
Disagree	33.0%	16.7%	60.6%	40.6%	37.5%	33.3%
Neutral	16.7%	16.7%	24.2%	34.4%	15.6%	20.2%
Agree	50.0%	66.7%	15.2%	25.0%	46.8%	46.4%
N	6	6	33	33	94	102

Parents also agreed that counselling support was adequate. Approximately 46% of parents viewed counselling support as adequate in both periods. A significant proportion of these parents had children who attended urban schools. They accounted for 26% and 27% for March-July and September- November, respectively.

Another state intervention to create an enabling environment for online teaching and learning was training/sensitization for educators regarding online delivery of educational material. With the shift to online learning, teachers were expected to adapt and manoeuvre the online platforms.

Table 7. Distribution of Views on Adequacy of Training to Deliver Online Learning

	Principals		Teachers		Parents	
	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov
Disagree	50.1%	33.4%	56.3%	25.5%	10.6%	7.8%
Neutral	16.7%	16.7%	18.8%	28.1%	10.5%	3.9%
Agree	33.3%	50.0%	25.0%	46.9%	78.9%	88.2%
N	6	6	32	32	95	102

In March to July, principals and teachers (50% and 56.3%, respectively) felt the training provided was inadequate (see Table 7). However, by September to November, there was a shift in their perspective, and most principals and teachers (50% and 46.9%, respectively) viewed the training as adequate. From parents' perspectives, most (78% March-July and 88% for September-November) felt the teachers' delivery of online classes was adequate.

Central to online learning is access to working devices such as laptops, computers, or tablets for both teachers and students. For both periods, most (66% for March to July and 80% for September to November) parents indicated their children had access to working devices (see Table 8). Disaggregated data further showed that, 34% of the parents (March-July) and 44% (September-November), who indicated their children had access to working devices were from rural schools.

Most teachers indicated they had access to working devices to deliver online classes from March to July (59%) and September to November (72%). Moreover, disaggregated data indicated that urban teachers accounted for most respondents who had access to working devices to facilitate online teaching - 34% (March-July) and 39% (September-November). The principals (67%) had access to working devices to deliver online classes from March to July and 83% September to November.

Table 8. Distribution of Views on Access to Working Devices

	Principals		Teachers		Parents	
	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov
Disagree	33.3%	16.7%	28.3%	12.1%	24.5%	14.0%
Neutral	0%	0%	13.0%	15.0%	9.6%	6.0%
Agree	66.7%	83.4%	60%	72.0%	66.0%	80.0%
N	6	6	32	33	94	102

The state provided tablets to children without devices for accessing online classes. In March to July, principals and teachers (84% and 83% respectively) felt that students without devices did not benefit from the state intervention. However, by September to November, both groups experienced a shift in their perspective. Most principals and teachers (83% and 60%, respectively) believed students in need benefitted from the intervention (see Table 9).

Table 9. Distribution of Views on Provision of Tablets

	Principals		Teachers		Parents	
	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov
Disagree	84.0%	17.0%	83.0%	21.0%	93.0%	73.0%
Neutral	0%	0%	10.0%	18.0%	3.0%	3.0%
Agree	17%	83%	6.0%	60.0%	4.0%	25.0%
N	6	6	31	33	90	101

During March to July parents (93%) believed students in need did not benefit from the intervention, while September to November reflected 73% (see Table 9). From the cohort of parents who believed that students did not benefit from this intervention, 54% had children enrolled in rural schools compared to 39% who attended urban schools (March-July). For September to November, rural parents accounted for 34%, and urban parents 39%.

Recognising that access to internet is critical to online learning and that internet penetration is not universal, the state sought to remedy this deficiency through pervasive internet connectivity. All groups believed that internet facilities were inadequate, as most students without internet service did not benefit (see Table 10).

Table 10. Distribution of Views on Adequacy of Internet Provision

	Principals		Teachers		Parents	
	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov	Mar -Jul	Sept -Nov
Disagree	83.3%	66.7%	87.9%	63.6%	92.6%	91.2%
Neutral	16.7%	16.7%	12.7%	27.3%	3.2%	3.9%
Agree	0%	16.7%	0%	9.1%	4.2%	4.9%
N	6	6	33	33	95	102

Notably, while there was a significant decline in the percentage of principals and teachers who viewed internet provision as insufficient in September to November, the percentage remained constant among parents. Rural principals (50%), teachers (48.5%) and parents (52.6%) indicated that students/children who had no access to internet did not benefit from the facilities provided.

Interviews and Focus Groups – Phase Two

This phase of the study sought to gain deeper insights into the experiences of participants. Consequently, principals' interviews and, teachers' and parents' focus groups were conducted. The interviews and focus groups consisted of open-ended questions. Responses were recorded and transcribed. Analysis of participants' responses revealed six significant themes, which are explored below.

The following themes emerged from the coding process: technology, learning kits, teacher outreach, devices, training and counselling sessions. Specifically, the themes of technology, learning kits, and teacher outreach emerged from sub-questions for RQ1 - 'To what extent has COVID-19 impacted access to continued education in selected urban and rural primary schools in Jamaica?' Training, devices and counselling sessions emerged from sub-questions for RQ2 - 'How has the state's intervention facilitated access during the pandemic in selected schools in Jamaica?'

Technology

For March to July, parents indicated that 66% of their children had access to working devices to access online learning. In September to November, parents reported an increase to 80%. Despite increased access, most participants experienced major technological challenges. The conceptualisation of technology recognises devices and services: internet services, television, WhatsApp, Google Classroom, and radio. The challenges with technology expressed by parents were affordability of data and devices, capability to use online platforms, knowledge and experience, and loss of income.

One parent explained, '*parents do not have a phone, internet service, or any other device to get the schoolwork at most schools. Data is costly, and most parents cannot afford it*' (Parent, School A). Other challenges expressed were:

'We have no internet at home so we connected to the neighbour's Wi-Fi.' (Parent, School B)

'In March, they mostly used WhatsApp. We were not all that familiar with Google Classroom, but they started utilising Google with WhatsApp throughout the teachers' training. Google was a bit challenging. The tablet she had was not compatible with Google Meet, so now she uses my tablet, it still was not going through.' (Parent, School C).

Teachers corroborated the prevalence of WhatsApp usage and data affordability. One teacher said, '*I was using WhatsApp. That's the only thing I knew about, but I tried my best to use the Google Classroom after learning some of the learning management systems*' (Teacher, School C) while a second teacher participant further explained that, '*they had what you will call data issue, don't have sufficient money to buy data, to keep up with the system*' (Teacher, School F).

Learning Kits and Teacher Outreach

Other measures complemented the online teaching and learning process. The Ministry of Education, Youth and Information (MOEYI) implemented the learning kit initiative, which schools used along with other customised efforts. A principal noted, '*we try to reach them through learning kits, and we have a drop-off and pick-up point on the school compound for each grade. We've also asked parents, who are without devices, to come and collect the packages. Teachers come in on Fridays to take in the activities, and we mark and return them*' (Principal, School B).

To corroborate the efforts taken by educators to ensure students without internet access were not left behind, a teacher stated, '*I mostly use textbooks... Because I'm driving past some of the homes, I tell them that I'm on my way and they can meet me at the gate and collect the books, and I mark it for the period September until now*' (Teacher, School D).

Even parents were aware of measures used by schools to facilitate the continued learning of students without internet access. One parent expressed, '*persons who could not get internet access could go to the school to pick up booklets*' (Parent, School A).

The sudden shift from in-person to online teaching and learning required several elements to educate students via distance learning. Access to an enabling environment is essential for an effective transition to online learning and teaching. It required all students to have access to devices and teachers equipped to use online learning systems. As such, the government provided devices and training to teachers to enable online learning support to students.

Devices

Most parents (93%) surveyed noted their children did not benefit from tablets by the government in March to July. However, there was a decrease to 73% for September to November, indicating some parents may have benefitted from the initiative. One teacher explained, *'but for the students I think, some students got tablets from the government and yes, the computer that I use presently I got it from the school e-learning. Some years ago, the Ministry gave us'* (Teacher, School B).

The tablets provided to students, while commendable, was perceived by parents as a potential financial burden. A parent explained that *'the list that the government sends out with the tablets issued is one reason why so many children are without a device because a lot of things come with it if it gets destroyed... To be honest, if the government gives my child money for food at school, how will I pay for a broken tablet? I know of parents who got a tablet and don't allow the child to use it just because of the agreements. They need to redo that Term and Condition Paper'* (Parent, School F). This sentiment was shared by other parents. So despite having a device, the agreement impacted students' access to online classes. Another parent complained that while tablets were provided, their child still had difficulties accessing online learning, *'he has the device, but the data service runs out'* (Parent, School A).

Training

Considering that teachers pre-pandemic did not utilise online learning systems, there was a clear need for training given the shift in educational modalities. Consequently, the government instituted training programs to familiarise and increase educators' competency with the learning systems. Concerning the adequacy of training, principals (50%) and teachers (56%) indicated they were inadequate for March to July. However, in September to November, principals (50%) and teachers (46.7%) viewed the training as adequate. One principal stated, *'they also did Zoom training sessions with us on how we could conduct positive behavioural interventions in the online setting, or what we could do, even though we are distances away'* (Principal, School A).

There was consensus among most participants that virtual learning presented unique challenges for students compared to face-to-face. These challenges were more pronounced in March to July, which may be attributed to the abrupt transition to online learning. Consequently, there was little lead time for students, parents, and educators to prepare themselves. It was perceived that the government operated *on the fly while figuring out the kinks* as the closure of schools extended. Notably, from September to November, there was some improvement as teachers received training, and students were provided with devices and access to the internet. However, despite the state's and teachers' interventions, some students were inevitably left behind due to a lack of access to one or more elements required for online learning.

The focus group discussions revealed that age was a predictive factor regarding challenges associated with online learning processes. Principals shared that children in grades 1-3 found online learning more challenging than their grades 4-6 counterparts. Additionally, children with special needs, such as learning disabilities, experienced more challenges with virtual learning than their non-disabled peers.

Discussions with principals and teachers indicated both age and experience ultimately affected students' attendance, interest, and ability to cope with online learning. It was recognised that attendance and interest were higher among the older students. According to one principal, *'for grades 5 and 6, it is good... They [parents] try their best to ensure that the students are online and participating... these children will be doing the primary exit performance exam... But, as we move towards grade[s] 3, 2 and 1, that's where we start having the real issues, with the participation... from the reports, a class that has 29 students will only be reporting maybe about 11 or 12 students online, for a day'* (Principal, school A).

Other principals echoed similar sentiments, *'and usually, I find that priority is given to the bigger children. My infants are kind of struggling a bit because the students of grades 5 and 6 are given priority in a family with one device which has to be shared across three children'* (Principal, School B). Another principal noted, *'it has had a detrimental effect in children not getting the quality education they should be receiving. It is not the same quality as face-to-face, especially for these young ones'* (Principal, School D).

Online learning requires parents to manage the learning system, particularly logging into and navigating the prescribed platforms to ensure children participate. The discussions revealed that the extent to which parents are capable of expertly managing and navigating the online learning systems might be linked primarily to their educational level and the age at which they became a parent. One principal explained, *'we still have many parents who did not attain secondary level education. We have a lot of young people who are having children. Educationally, we are not at our best'* (Principal, School B).

The predominantly held view of age influencing maturity and responsibility concerns principals, given that a significant proportion of their parent population was relatively young. One principal stated,

'some parents who have limited educational attainment were unable to assist their children with the schoolwork online, while others showed little interest even in picking up learning kits to be collected at the school.' Consequently, 'parents do not collect the work for their children and parents don't return the books to be marked' (Principal, School E).

Counselling Support

Given the limitations associated with remote teaching and unintended consequences of the COVID-19 pandemic, Jamaica implemented measures to support educators and students through counselling support. According to the MOEYI, school counselling is a professional service offered in schools to improve students and teachers functioning and mental health. The goal of counselling support is to advance the psychological, social, academic, and professional growth of both students and faculty. Loscalzo (2022), reiterated the importance of psychological counselling, particularly for students to facilitate the successful recovery of their mental health and well-being during crises situations such as the pandemic.

In contrast, teachers who were on the front line – delivering lessons and engaging with students daily felt that the counselling support provided was inadequate. While the percentage of teachers who felt the support was inadequate declined over the two school terms, this perception did not change. During the pandemic the MOEYI provided limited counselling support for principals. The support provided highlighted skills and tools on how education practitioners, in particular principals, could ensure the safety of themselves and their staff as one principal noted

they gave us about three ZOOM sessions for principals, on basic healthcare- how we take care of ourselves first, what we need to do as individuals, to take care of our own staff and what we are to look out for. They told us in another session, the services that they provide, how we could contact them, and the kind of possible psychosocial support that students would also need (Principal, School B).

Further, counselling support provided created an environment in which principals were made aware of the additional needs that their students may have during the pandemic. This would directly impact how practitioners should position themselves to address students' needs. To help schools cope with the growing needs, two principals noted that a guidance counsellor was provided by the Ministry to offer psychosocial support.

Nevertheless, there was one principal who indicated *"we have not gotten, and my school did not have a Guidance Counsellor. It was not until January we were appointed a Guidance Counsellor"* (Parent, School D).

This meant that the principal undertook the role of counselling, provided emotional support to school community – teachers, students and at times parents. While psychosocial support such as counselling was available for teachers, some education practitioners believed it was limited as one teacher mentioned *'only when they had... the Zoom meeting, they had a counselling meeting for us, the teachers. That was it. It was not that we had much (Teacher, School D).*

Other participants felt that the provision of the sessions was inaccessible since education practitioners had competing priorities during the pandemic. Yet others stated that the sessions were provided only in the final quarter of the school year when the pandemic had been ongoing, and practitioners had already deciphered to some degree how to cope without additional assistance.

Data Integration

Research question three which sought to understand how the quantitative and qualitative data converged was addressed by using the Pillar Integration Process through a joint display as indicated in Table 11. Table 11 provides a summary to depict key areas at which the quantitative and qualitative data converged.

Table 11. Integrated Visual Display Triangulating Quantitative and Qualitative Data

	Quantitative	Qualitative	Analytical Integration
State intervention	Principals' perceptions ($M=2.92$) - Counselling support; working devices; training	"sessions for principals, on basic healthcare, how we take care of ourselves, first..." "how we could conduct positive behavioural interventions in the online setting, or what we could do, even though we are distances away"	In interviews principal's indicated some level of counselling support Counselling support was inadequate Convergence across data on training of device use, usage of online teaching platform, develop skills for remote teaching Training was adequate
	Teachers' perceptions ($M=2.73$) - Counselling support; working devices; training		
Impact on access to education	Parents' perceptions ($M=3.11$)	"the list that the government sends out with the tablets issued is one reason why so many children are without a device because a lot of things comes with it if it gets destroyed..." "we did not have a guidance counselor nor received anything from the ministry"	No convergence across data findings Perspectives on counselling support from the state varied across schools but provision was made by educators
	Principals' perceptions ($M=2.89$) - devices, learning kit, internet	"My infants are kind of struggling a bit because the students of grade 5 and grade 6 are given priority in a family with one device which has to be shared across three children."	Younger children did not have equitable access and quality education Provisions were made but some students still had no access
	Teachers' perceptions ($M=3.11$)	"we try to reach them through learning kits, and we have a drop-off and pick-up point on the school compound for each grade. We've also asked parents, who are without devices, to come and collect the packages. Teachers come in on Fridays to take in the activities, and we marked the activities and returned to them"	
	Parents' perceptions ($M=3.57$)	"parents do not have a phone, internet service, or any other device to get the schoolwork at most schools. Data is costly, and most parents cannot afford it"	Lack of adequate resources impacted the way children accessed education

Discussion

School closures due to COVID-19 significantly disrupted education across Jamaica. Evidence from this study indicates that the pandemic contributed to increasing absence within the remote learning environment. This can be counteracted by other research findings which suggest unprecedented increase of online learning activities (Chambers et al., 2020). However, more than 60% of principals and teachers who participated in the survey noted that increased absence was a reality among their students' population. Policymakers, educators, and even parents were unprepared given the abrupt shift to remote learning. They were forced to implement a remote learning environment expeditiously to continue education. The implementation of this remote environment highlighted several limitations among the groups studied. Whitley et al., (2021) noted that "the pandemic has revealed to schools and governments the needs and inequities related to technology access" (p. 1697). There was unfamiliarity with remote learning platforms, delivery, and access to a device for educators. Students grappled with access to the internet, devices, and adapting to the new remote environment. At the same time, parents dealt with the unfamiliarity of online learning, navigated platforms, and provided a conducive space at home where students could be actively engaged without distraction from other household members. As the data shows, each group had unique experiences and challenges accessing and participating in remote learning. This finding parallels the argument of Clow and Kolomiro

(2018) who pointed to disparities arising from the “one-size-fits-all model in an online environment” (para. 4) and the challenge to overcome such issues.

Nonetheless, understanding the limitations associated with remote teaching and learning, Jamaica implemented some measures to support educators and students. Measures included counselling support, training to deliver online education and implemented programmes for the provision of devices. Teachers on the frontline who delivered lessons and engaged daily with students perceived counselling support as inadequate. Notably, while the percentage of teachers who felt the support was insufficient declined over the two school terms, but the perception of counselling inadequacy did not change. Nevertheless, both parents and principals felt the support was adequate. One can infer that the teachers provided most of the support and educational content for students. Therefore, they would be best able to judge the level of support needed to carry out their function effectively. At the time of the study, they stated that resources provided were inadequate, and they required additional support. Training provided for educators were initially perceived as insufficient. However, by the second term, the perception among educators changed; educators believed the state provided adequate training support. It can be postulated that they were equipped and familiar with delivering online learning by the second term, although they fell short at the beginning.

Unfortunately, despite the state's efforts to provide an enabling environment for remote learning, the evidence showed closure of schools contributed to disengaged students or the loss of students from the educational system and possible learning loss – decline in academic performance. Engzell et al., (2021) highlighted that “data on learning loss during the pandemic have been slow to emerge” (p. 1), but from the lens of Tomaševski (2001) 4-A framework, there was an apparent disconnect with students access to education. This disconnect was evident in the lack of inclusivity, availability, accessibility, acceptability and adaptability. The general systems and social exclusion/inclusion and inequality theories, on the other hand, highlighted grave disparities among and between students in both rural and urban schools. For example, an increase in students' absence for remote learning alludes to disruption and, worse, the discontinuation of education. School closure and the shift to remote learning significantly impacted students from lower socioeconomic backgrounds. The principals' noted that some students were unable to continue their education via remote learning. Their inability to participate was attributed to a lack of access to devices and the internet. Werner and Woessmann (2021), argued that online learning is not an ideal substitute for face-to-face. Notably, state interventions did not eliminate this challenge as some students did not benefit from the initiatives.

Additionally, educators indicated that students' engagement online was low, especially among the younger age cohorts. These students were less likely to participate in online classes consistently, and parental support to ensure their participation and attendance was lacking. On the other hand, students preparing for national assessment were more likely to participate, attend and engage in remote learning. Furthermore, parental support and assistance were critical for students and were perceived as enabling factors for sustained attendance and participation in remote learning. Generally, educators perceived learning losses among their student population (low-income students). Compared to pre-pandemic academic performance, there was a decline in student grades/academic performance. This may infer that while access to education to some extent is achieved and education is continued, it doesn't translate to quality education (higher or same student grades). The state should ensure that all children have access to education, but access alone is not good enough; education accessed should be of good quality.

Despite the remote learning measures, any homogenous approach would exclude a significant number of students. This study's data show the shift to remote teaching and learning failed to provide continued education with the full complement of students registered for primary education in the physical classroom and inevitably left many students behind. In response, a blended approach was used to reach students who experienced technical difficulties. This approach included distribution of learning kits to parents. The kits were available to students as educators went the extra mile to deliver them to the homes of students.

Conclusion

Access to education among urban and rural primary schools in Jamaica during the COVID-19 pandemic was haphazard. Students' ability to continue education via online modalities was severely constrained and impacted by lack of access to smart devices and internet. In addition to the challenges arising from age differences, findings from this study highlighted a disparity between the ability of children in rural and urban communities to access the internet.

Therefore, school closures diminished students right to primary education as the state's response failed to provide universal access and inhibited inclusive online participation for all. The findings showed that Jamaica lacked the enabling environment to accommodate a thriving and fully remote/online learning environment. Therefore, tailored measures such as 'learning kits' were included to facilitate students who could not access the online platform. However, it is clear even with the blended approach, all primary school students previously enrolled in face-to-face classes were not engaged and risked being left behind.

The emergence of COVID-19 highlighted the need for the state to invest in a more enabling environment to engender participation for all students. At the same time, a blended approach – specifically the inclusion of learning kits was

able to facilitate students with no access to remote learning. Nevertheless, more is needed to engage students inclusively. The educational system needs to be more responsive and shock prone in anticipation of other crises.

Recommendations

Based on the findings, the following recommendations were offered for different stakeholders:

1. Free internet access – will increase the internet penetration island wide, thereby reducing the barriers to access among students while simultaneously eliminating the cost currently associated with accessing the internet/Wi-Fi. Parents expressed it as one of the greatest hindrances to online learning. A public-private partnership could be established to assist the government with associated costs for implementing free internet access at central community points island wide.
2. Secondly, increased access to tablets or laptops, especially for students from lower socioeconomic backgrounds in rural and urban areas, would improve access to online learning. The government's efforts deserve commendations, yet there is a need for more durable, free, and compatible devices with Google Classroom. Additionally, MOEYI should remove the stipulations of repayment by parents if the devices are damaged. This deters use by those who have benefited from the programme and is counter-intuitive to the original intention to facilitate participation online.
3. Thirdly, the government should strengthen the blended approach methodology to respond to the diverse students' needs and abilities across the island. The state should continue strengthening the remote learning environment within the blended approach with keen attention to infrastructure, hardware, and software.
4. We recommend research to identify and assess students who were more affected by learning loss due to COVID-19 to provide additional support for learning recovery.
5. Finally, the government should commission research to establish the national fallout on education at K-12 to develop policies and responses to mitigate similar crises.

It is the obligation of the state to fulfil the right to primary education. To do this, the state must prioritise social equality and inclusive access to education and support the 'no child left behind' act adopted in the Vision 2030 Jamaica National Development Plan. This policy should prioritise face-to-face delivery whilst simultaneously the state establishes a more responsive environment. The policy should also facilitate training for parents and guardians to equip them with the basic pedagogical skills necessary to enable quality homeschooling. Furthermore, the theoretical principle of Tomaševski's 4-A scheme, which promotes available, accessible, adaptable, and acceptable education for all students underpins this policy recommendation. The immediate implementation of the proposed policy across all levels of education should facilitate students' continued access to education during future crises. Such strategies should accommodate remote learning on a larger, more inclusive scale.

Limitations

Given the funding allocation for the research the study was limited by the sample size. As a result of the small sample size, the findings of the study cannot be generalized to other rural and urban k-6 primary schools across Jamaica. Another limitation was the reliance on participants subjective responses. The participants were principals, teachers and parents who provided their insights through the interview questions and focus group discussion. In self reporting their views there was the possibility of the participants presenting their perceptions in an inflated or exaggerated manner as the information was directly aligned in the case of the principals and teachers to their school and with respect to the parents, their children. The study was also limited by COVID-19 restrictions, and time constraints given the deadline within which the research had to be completed.

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Authorship Contribution Statement

Burke: Concept and design, data acquisition, data analysis/interpretation, drafting manuscript, critical revision of manuscript, statistical analysis, securing funding, admin, technical or material support, final approval. Ellis Colley: Concept and design, data acquisition, data analysis/interpretation, drafting manuscript, critical revision of manuscript, statistical analysis, securing funding, admin, technical or material support, final approval. Nelson: Concept and design, data acquisition, data analysis/interpretation, drafting manuscript, critical revision of manuscript, statistical analysis, securing funding, admin, technical or material support, final approval.

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