THE INITIAL ENGAGEMENT AND EXPERIENCES OF CARIBBEAN EDUCATORS WITH THE REALITY OF COVID-19: EXPLORING THE EDUCATIONAL PLANNING IMPLICATIONS

CANUTE THOMPSON
THERESE FERGUSON
VERNA KNIGHT
DIAN BAILEY
SHARLINE COLE
NADINE DAVIS
MAXINE HENRY-WILSON
VIVIENE JOHNSON
AVALLOY MCCARTHY-CURVIN
ALLISON MONTGOMERY
SCHONTAL MOORE

The University of the West Indies, Jamaica

ABSTRACT

COVID-19 caught the world off-guard, bringing disruption and chaos to all sectors, including education. Within Caribbean Small Island Developing States (SIDS), the experiences were varied, as were the responses of educational stakeholders at all levels to the crisis of the pandemic. Stakeholders' experiences and responses should inform educational planning and policy, and it is against that backdrop that this research was conducted. This research captures the insights from three webinars sponsored by the Caribbean Centre for Educational Planning, which focused on challenges faced by educational institutions at the primary, secondary and tertiary levels of the education system. The transcripts from those webinars were used to construct this paper using a generic qualitative research design. The webinars pulled on the expertise of panellists from across the Caribbean and North America. The findings reveal that most stakeholders were unprepared for the challenges occasioned by COVID-19, which translated into further difficulties adapting to online/blended teaching/learning, psycho-social stresses, heightened economic challenges, and disruptions to examinations. In response to these challenges, among the stakeholders, training was implemented, open communication increased, technical and infrastructural resources were upgraded, health and safety protocols were enforced/reinforced, and domestic and international groups collaborated to bolster access for all students. Lessons learned included the need for collaboration, equity, access, and opportunities, and exercising the courage to radically rethink the region's 'educational futures' by incorporating the shared perspectives of key stakeholders in educational planning and policy making.

INTRODUCTION AND BACKGROUND

The COVID-19 pandemic presented the world with a major catastrophe resulting in school disruption for some 1.5 billion students worldwide, according to World Bank estimates (Saavedra & Kopp, 2020). An October 2020 report sponsored by the Organization for Economic Co-

operation and Development (OECD) notes that with the unprecedented disruptions in schooling caused by the COVID-19 pandemic, policymakers, educators, researchers and the general public have demonstrated increased interest in knowing how education stakeholders have responded and how students' learning experiences have changed. These are important subjects of study to guide policy-making and the operations of schools in the future (Bertling et al., 2020). In the Caribbean, the estimates are that some 7 million students and 90,000 teachers across 23 countries have been affected by school closures due to the pandemic (Asevedo et al., 2020). The scope and scale of this unprecedented problem have been the subject of study by countless organizations.

The Caribbean is a region with a history of colonialism and is characterized by a deep-seated legacy of asymmetries of power, exploitation, and inequality in the broader society and within the education system (Brissett, 2018). This has resulted in disparities in the quality of resources made available to schools and, thus, inequalities in student outcomes. Student population is estimated to be approximately 89,000 primary aged children in the Eastern Caribbean (Menefee & Bray, 2015) and over 200,000 in Jamaica.

While most Caribbean countries operate centralized education systems, the diverse realities within which schools operate require that school leaders take steps locally to address disparities and challenges that they face. The responsibility for responding to the peculiar impacts of externally driven realities does not mean that schools are left on their own. Rather, it suggests that the responses made to external challenges reflect a combination of local and central leadership, with the latter being driven by broad policy and allocation of already scarce resources. However, the most disadvantaged schools tend to be located in marginalized communities in rural areas (CARICOM, n.d.). In a 2017 report, Jamaica's Chief Inspector of the National Education Inspectorate highlights the initiatives grasped by many of the principals, but concludes that in terms of human and material resources to provide support for student learning, only 14% of the institutions inspected were classified as either exceptional or good, while 86% were ranked satisfactory or below (MOEYI, 2017).

STATEMENT OF THE PROBLEM

Unlike other regions of the world such as Europe, North America, and South-East Asia, the Caribbean, as a post-colonial society, is challenged by lack of adequate investment in education (Jules, 2008; Thompson, 2020). A United Nations International Children's Emergency Fund (UNICEF) study in Jamaica, for example, found that 45% of households were experiencing food shortages because of COVID-19 (CAPRI, 2021).

The combination of these factors means that conditions such as pandemics which result in school closures and lost learning time, will further erode the already precarious state in which vulnerable families find themselves. Azevedo et al. (2020) estimate that learning losses due to the pandemic could cost the global economy up to ten trillion dollars. This study seeks to explore various stakeholders' experiences with the pandemic, in the period after schools re-opened, subsequent to the immediate closure in mid-March to April 2020. The focus of this investigation is to uncover lessons which may guide planning and future policy making.

PURPOSE OF THE STUDY AND RESEARCH QUESTIONS

The purpose of this study is to outline how education policy makers, education practitioners, students, parents, and internet service providers in the Caribbean (generally referred to as stakeholders), responded to the challenges posed by the COVID-19 pandemic for pre-primary, primary, secondary and tertiary level education. The study is built around the following questions:

a) What were Caribbean nations' educational experiences during the COVID-19 pandemic?

b) How were the challenges experienced addressed by educational stakeholders at different levels?

c) What are the lessons learned and how can these be used to create a resilient education system?

LITERATURE REVIEW

The COVID-19 pandemic has highlighted many inadequacies and inequities in education systems, such as issues of access to broadband and computers needed for online education, the supportive environments needed to focus on learning, and the misalignment between resources and needs (Schleicher, 2020). There continues to be concerns about learning loss and disengagement as the pandemic forced schools across the globe to close their doors to limit further outbreaks. To ensure continuity, a variety of resources and technologies were applied to sustain online learning (Reimers, 2021). This is congruent across the literature with Pokhrel and Chhetri (2021), sharing that the global pandemic resulted in a paradigm shift from face-to-face to remote teaching and learning. It is therefore imperative to understand the actualities of education globally during the COVID-19 pandemic and how it has continued.

Global Educational Experiences of the Covid-19 Pandemic

According to Schleicher (2020), crises usually affect government budgets. The COVID-19 pandemic has resulted in a predicted down-turn. This prediction, in some instances, has caused cuts to educational budgets as funding is directed to health care and welfare needs. Despite the financial constraints, many countries have implemented financial measures to support education. Australia, Canada, Italy, New Zealand, England, and the United States of America have provided financial support that spans tuition financing, procurement of digital platforms and tools, payment of utilities, and meeting sanitation and other operational costs (Schleicher, 2020).

China was the first to close schools, with other countries following shortly thereafter. Sweden and Iceland remained open although with limitations. Countries such as Australia and Chile moved to reorganize their school year to minimize learning loss (Schleicher, 2020). Several online instructional resources were utilized, including radio and television education, instructional packages sent home to students, and online platforms. Other measures included a support system for students and parents such as the one implemented by the government in Luxembourg to facilitate home schooling (Reimers, 2021; Schleicher, 2020). Despite a variety of learning tools being available for education continuity, not much has been done to measure the effectiveness and reach of online modalities. Estimates indicate that coverage is less than 50% in low-income countries and is likely due to lack of access to electricity, inadequate technological devices, and low digital literacy among key partners (United Nations, 2020). In India, access to devices is low and therefore, the educational impact

recognizes that the poorest children are most hurt by the pandemic due to school closures (Kundu, 2020; Vegas, Lee, & Shrestha, 2021). Across the globe there are higher levels of non-participation in education, particularly where there is low human development. Further to that, fragile education systems have negatively impacted students' learning remotely. Their home environment provides limited opportunities for continuity, and this results in increased disparities.

Teachers were largely unprepared for the shift in teaching and learning and did not have basic information communication technology (ICT) skills. For teachers who were still required to engage students in face-to-face sessions, their health was at risk. Salaries and renewal of contracts were also an issue due to financial constraints experienced by institutions and will likely affect attrition rates and decrease the quality of education in the present and post COVID-19 pandemic (United Nations, 2020). According to EdTech Hub (2020), in Sub-Saharan Africa, teachers lack appropriate training to design and manage distance learning programs. This presents a significant impediment to virtual teaching and learning which is compounded by a lack of infrastructure: electricity, connectivity, devices and a lack of appropriate learning materials, books, television and Internet-enabled devices. However, many educators across the globe had to participate in online and in-person training with a few indicating the need for advanced level training (Schleicher, 2020).

Higher education institutions have been able to move some programs online while others continue to be delivered face-to-face. A decrease in international student mobility has affected learning continuity, safety, and the legal status of international students. The absence of international students on campuses has adversely impacted international students' exposure, their input in the foreign job market and their ability to benefit from networking. Having fewer international students has also affected the funding model of some institutions. International students are a significant source of income due to their payment of higher tuition fees compared to domestic students (Schleicher, 2020).

The Technical and Vocational Education and Training (TVET) sector continues to grapple with the lack of apprenticeship and the required work-based learning modes. There is also a lack of inclusivity for students with disabilities. Quality assessment in keeping with academic standards is also a cause for concern. In many cases assessments were cancelled, postponed or alternative modes were implemented (Pokhrel & Chhetri, 2021; Reimers, 2021; United Nations, 2020).

All members of the education community, inclusive of students, parents and teachers, have encountered challenges with their psychological, social and emotional well-being (ECLAC/ UNESCO, 2020). Cielo et al. (2021), Lizana et al., (2021) and Ozamiz-Etxebarria et al. (2021) have found that the pandemic has continued to affect young people globally with psychological impacts including anxiety, mental distress, depression, psychological well-being, and sleep habits.

Global Response
The global response to COVID-19 started out as a 'automatic' reaction, but eventually morphed into definitive strategy and well-developed protocols, even amidst continued uncertainty. International watchdogs with responsibility for health, education, finance, as well as other key areas, created strategies for the management of the rapidly unfolding crisis.

According to Li and Lalani (2020), research indicates that online learning has been linked to an increase in the retention of information. Despite the challenges associated with online teaching and learning, this positive characteristic may lead to a shift in education provision. The authors question

whether this sudden and sustained move to online learning could serve as the catalyst to create a new, more effective method of educating students. Global patterns indicate that there is likely to be an emergence of a 'hybrid' kind of education system after the waning of the COVID-19 pandemic. The authors observe that significant world events often lead to rapid innovation. Improvements in online technology for teaching and learning may help to cement varied methods of education delivery in a remote context.

The gravity of the global crisis caused by COVID-19 will require sustainable long-term collaborative efforts from a multiplicity of stakeholders across the world to devise solutions, and it is within this context that the task of this paper is to be understood.

RESEARCH METHODOLOGY

Research Design

In exploring stakeholders' experiences with the pandemic, a generic qualitative research design was employed. Generic qualitative research designs employ elements from different designs that "blend established methodological approaches in order to create something new, or that claim no formal methodological framework at all" (Caelli et al. 2003, as cited in Kahlke, 2014, p. 39). The philosophical underpinning of generic qualitative research is based in social constructivism which focuses on how people interpret their experiences, construct their world and the meanings that they give to their experiences (Merriam, 2009). Uncovering the experiences of the different stakeholders, how they construct or make meaning from their experiences and knowledge, provides more depth and understanding of the different contexts, and the impact of the Coronavirus on educators, industries (public and private sectors) and on existing policies.

Webinars

Three webinars were held in the early moments of the pandemic, in June 2020, December 2020 and March 2021. These seminars were organized by the Caribbean Centre for Educational Planning (CCEP) located at a regional university in the Caribbean. The objectives of each webinar, which drove the key issues examined, are detailed in Appendix 1. The webinars were structured around two or three panel presentations facilitated by a moderator. The panellists would present opening comments ranging from 3 to 5 minutes in response to issues related to the objectives, relative to the work of the organizations they represent or their personal experience. A list of the expert panellists is presented in Appendix 2. These panellists are, at times, generally referred to as stakeholders.

The first webinar was titled: Learning from the COVID-19 Pandemic: Imperatives and Opportunities for Building Resilient Education Systems in the Caribbean. This webinar sought to explore how the education sector in the Caribbean was coping with the onset of the challenges posed by the pandemic. The second webinar, designed to explore the experiences of leaders in the education sector, at the policy and practitioner levels, in their efforts to rethink the design of their respective country education systems, was held under the theme: Reimagining Education: Present and Post COVID-19 Considerations.

The final webinar was entitled: The Last Mile with Infrastructure Support and Creativity in Delivery: Ensuring Every Child has Access to Quality Education. It sought to articulate some concrete actions countries needed to take to address the pre-pandemic and pandemic-driven challenges in the structure and delivery of education in the Caribbean.

Twenty-seven (27) panellists participated in the webinars from various Caribbean and North American nations, including, Barbados, St. Lucia, Trinidad and Tobago, Jamaica, Guyana, Turks and Caicos, Dominica, and America.

These experts were recruited to provide insights into the different circumstances that exist throughout the Caribbean. Thus, these experts were identified based on their extensive educational and/or occupational knowledge in their relevant spheres, and their ability to represent different stakeholder groups. They included heads of educational institutions at all levels, educational practitioners (e.g. teachers, university lecturers), educational policy-makers, students, parents, organisations involved in funding education, and the telecommunications industry.

Moderators for the panels and the Question and Answer segments were drawn from the CCEP Operations Team, specifically lecturers from different specialization areas in education at the regional university. These individuals summed up key points emanating from discussions and posed questions from the audience to the panellists.

Data Collection
Data were collected via the three webinars, each of which lasted approximately two hours. Also, stakeholders who attended the webinars were able to post their questions in ZOOM chat and one of the moderators would feed questions to the panellists for answers. The contents of the Question and Answer segments of the webinars were recorded and later transcribed for analysis. The chat sessions were not included in this verbatim transcription.

Data Analysis
Rich and thick descriptions are the hallmark of qualitative research as researchers seek to collect, analyze, and interpret the data. The team analyzing the data ensured that they familiarized themselves with the data by reading and re-reading. Then, coding was done with information that had similar meaning being placed into categories. From the categories, thematic analysis was done, utilizing assertions according to the research questions. The codes and themes generated were reported in assertions that were presented with supporting data from the transcripts.

Ethical Considerations
The experts who participated in the webinars gave consent to their presentations and answers to questions posed to be used and published. Anonymity was maintained by the use of pseudonyms to represent each expert, and that there was minimal risk involved in publishing their viewpoints that would provide readers the opportunity to understand what has been happening in different countries, sectors of society and how the education system is navigating the impact of COVID-19.

FINDINGS
The key findings of the study, guided by the research questions (RQ) are outlined below. These findings will highlight a few key elements common to all educational levels (pre-primary, primary, secondary, tertiary), including, the struggle of regional educational systems to transition to online mechanisms of teaching and learning during the first months of the pandemic; the psychosocial stresses associated with the transition to this new modality for teachers, students and parents as key stakeholders in the process; and the exacerbation of educational disparities and gaps.

RQ1: What were Caribbean nations' educational experiences during the COVID-19 pandemic?

Assertion 1: Many stakeholders were unprepared to deal with the challenges brought on by COVID-19 and that led to difficulties making the transition to the virtual education space.

The COVID-19 pandemic presented immediate challenges for education systems across the region. The abrupt closure of schools meant that school leaders and administrators were forced into the rapid implementation of online and remote teaching and learning modalities, which proved a difficult transition.

> When the Prime Minister announced the suspension of schools to mitigate the spread of the disease, this led to another round of adjustments as we sought to address continuing education for students recognizing that some amount of educational opportunities would need to be provided while our students are out of school…We realize that they needed to be familiarized with the use of online methods which we did not have the time for actual preparation. [Senior Ministry of Education official - Jamaica]

> Moving classes online with just a few days to prepare was very difficult and stressful for teachers. Partly because the vast majority had not previously taught online and there was little time to get trained in online teaching. [Teachers' Representative, St. Lucia]

> Students were not able to come and study in the library, so we had to find resources for them to access through a digital library database, subscription to online academic support software. [Management Official Tertiary Institution - Jamaica]

This assertion was echoed at all school levels. With very limited time for adequate preparation, schools used the initial closure to put urgent measures in place to prepare for the transition to online learning. This included a predominant focus on training for teachers, with some training made available as well to parents and students. Some digital devices were also sourced and distributed.

> As soon as we were given advice that every educational institution in Turks & Caicos would have been closed on March 20, 2020, the Ministry of Education (MOE) ramped up capacity building for teachers, and overtime we built it out to include students and parents to some extent as well… At the time of closing schools, we started delivering laptops, the MOE purchased laptops for a number of our public schools, and we delivered those. [Education Official – Turks and Caicos]

Assertion 2: COVID-19 caused an exacerbation in the gaps that already existed in the education system.

It was noted that the pandemic worsened existing gaps in the education system; most specifically, gaps in access to education, and gaps in terms of student learning. The gaps in access to education resulted directly from the lack of digital devices and/or Internet connectivity by some teachers and students at all educational levels.

Another challenge that confronted us was access to technology for students and teachers to a lesser extent. This was one of the glaring realities with which we were faced. We recognized that there were several students who did not own technological devices and while there were parents who used their mobile devices online occasionally, we also recognized that these were not ideal for the online teaching. As the country began to reopen in the past weeks, some parents returned to work so several students no longer had access. [Principals' Representative - Barbados]

Only 60% of teachers and instructors were estimated to have the digital tools necessary for distance and online teaching. [Education Specialist - Regional Organisation]

We are not even sure how many students we are reaching and how we are reaching them. We are not even sure if they are on screen and watching and going through online platforms, answering questions, are they learning and retaining that information. [University Lecturer - Jamaica]

In the issue of connectivity, parents just could not access Internet; they did not have any device, and those who did have connectivity had problems because they were not tech savvy or computer literate. [Primary School Principal - Dominica]

Assertion 3: Students, parents, teachers, and school leaders all experienced grave pyscho-social stresses as a result of COVID-19.

Another key experience highlighted by participants related to observations of symptoms of psychosocial stress among school leaders, teachers, parents, and students. The stress for school leaders was related specifically to the planning and management of the overall emergency response in education as schools struggled to determine how access to education could be alternatively provided for students. As described earlier, this included determining what platforms should be used for facilitating learning, providing basic training for teachers (and other stakeholders as needed or available), sourcing devices, and dealing with a myriad of challenges presented by the pandemic.

Parents and teachers have experienced great stress because of the pandemic. These stresses were generally associated with difficulties in assisting their students or children with online or remote learning.

Parents at that time began expressing their confusion, their anger and their hopelessness and helplessness in helping their children with the material they received from their teachers online… At that moment what should be an educational activity became a thing of resentment for both parties – parent and child … Teachers become frustrated, and they feel that they come to school to teach and they ought not to be dealing with all these issues, and parents should address these issues at home… [Primary School Principal - Dominica]

Assertion 4: COVID-19 heightened the economic challenges faced by teachers, parents, schools, and governments.

There were also reported financial challenges created by the pandemic which impacted equity. Lack of financial resources not only prevented the purchase of digital devices and access to internet connectivity, but also led to the closure of schools. Some Early Childhood centres, and government school feeding programs were also affected. It has had negative impact on some children from lower socio-economic home/background.

> We are seeing that in terms of the teachers, the educational practitioners have been digging deep into their pockets to subsidize or even to maintain the whole virtual teaching and learning process. [Principals' Representative -Barbados]

> To access education on the coast they do so at great sacrifice… Some persons, because of their income and finance, did not have the resources to acquire data. [Tertiary Level Educator - Guyana]

Assertion 5: COVID-19 caused disruptions in the normal monitoring and execution of examinations.

The pandemic also presented significant challenges for children sitting national and regional standardized examinations, and necessitated deferral policies to allow children an additional year to sufficiently prepare. For instance, the principals' representative from Barbados highlighted how the abrupt closure meant the transition to online teaching had affected the thorough preparation needed for the Barbados secondary school entrance examination. The Ministry of Education official from Jamaica shared those examinations entities such as CXC allowed students to defer their exams without penalty to the students in the following year.

RQ2: How were the challenges experienced addressed by educational stakeholders at different levels?

The challenges experienced in the immediacy of the pandemic were addressed in various ways by the different educational stakeholders at the different levels. Based on the regional and local experiences shared by these individuals and entities (above), the following could be surmised.

Assertion 1: Training was conducted for students, parents and staff to manage some challenges that arose as a result of the pandemic.

In the immediate and more sustained response to the pandemic, the various stakeholders had to design, organize, and deliver various training initiatives for staff, students and parents to facilitate the transition from face-to-face to online learning. Entities with an education mandate in the region spoke to offering new training courses that would help the education systems build resilience in the face of this, and subsequent similar crises. Other participants spoke of primary school principals arranging internal training for staff, while, at the tertiary level, such as at The University of the West Indies, wide-scale training was arranged for faculty, students and parents. A Senior Education representative from the Turks and Caicos Islands shared that the Ministry of Education in that territory "ramped up capacity building for teachers and over time we built it out to include students and parents to some extent as well." Another individual from a community college in Jamaica shared the following:

> For our Faculty members we looked at learning to use the LMS (learning management system) to create activities and how to engage the students when they are online. We looked at using various tools such as social media that students access more readily for assignments or sharing information. We created a certificate course for lecturers to get certified in LMS to really get them versed in what they are doing, teaching them to use ZOOM tools, Google Docs etc. Similarly, we have been doing sensitization sessions for our students.

Assertion 2: The stakeholders at all levels of the education system engaged in more frequent and proactive communication.

To help navigate the pandemic, communication was critical to ensure readiness and fluidity given the changing circumstances. A teachers' representative in St. Lucia shared that communication had to be increased during the pandemic and, further, that new channels for communication had to be devised. The representative also stated that "The Union ensured regular and timely information was given to members and this was aimed at minimizing uncertainty, stress and anxiety. Due to the crisis and challenges faced, the Union increased dialogue with other actors in the educational system." A tertiary level educator from Guyana spoke to the need to ensure that this communication was constant and ongoing, sharing, "I think the hallmark of what is happening now is we must keep talking. We must keep communicating. We must find ways of continuing to support our student population and to supporting our colleagues in the education sector."

Assertion 3: Domestic and international groups collaborated to bolster access for all students.

As with education in general, collaboration amongst various stakeholders is critical to ensure student success. This was likewise the case for the pandemic, as domestic and international collaboration were critical to ensure access and success for all students. Partnerships included a wide range of entities such as regional organizations, the private sector, telecommunications providers, churches, universities, and others. As an example, the Ministry of Education official from the Bahamas shared:

> We also with our corporate partners launched a donor program and so within a few months we were able to provide some 40,000 students with devices and solar power. And I must say that our corporate sponsors came on board very quickly and they provided us the backup plan to make sure these students had devices. (Ministry of Education official - the Bahamas)

RQ3: What are the lessons learned and how can these be used to create a resilient education system?

From the regional experiences shared during the webinar series, various lessons learned were garnered and shared. Drawing upon these are critical with respect to ensuring regional (and global) education systems that are prepared and resilient for any further emergencies or crises that may emerge in the future. Below are some of the main insights shared.

Assertion 1: Collaboration among all stakeholders will be vital to ensure that the education system is strengthened and repaired, where necessary.

There is a clear consensus amongst the perspectives shared that collaboration at the international, regional and national levels will be critical to engender a resilient education system in the region. Additionally, this collaboration must be cross-cutting and multi-faceted involving various entities at all levels, including government, civil society and the private sector, as shared by a tertiary-level

educator in the United States. Further, this collaboration must start within the education system itself. As the teachers' representative from St. Lucia stated, "As a first step, there is a need to encourage our teachers and schools to share best practices, and there should be a system-wide documentation and sharing of these ideas." Thus, those most impacted by the pandemic to the extent that they have generated internal-based mechanisms and solutions, are those at the forefront and ideally positioned to share their best practices with others.

The need for international collaboration was voiced by the tertiary level educator from Guyana: "We will definitely have to aggressively seek international collaboration where possible to support our children and even in terms of higher education we will definitely need more financing."

Assertion 2: The inequalities and disparities will need to be addressed to ensure that all students have equal opportunities to a quality education.

One of the issues that the pandemic highlighted and amplified was the already existing inequalities within regional education systems. To ensure resilience in the event of future emergency and crisis situations, these inequalities and disparities need to be addressed. A speaker from a Caribbean regional office of a United Nations entity posited: "Emergencies and school closures have longer term consequences, especially for the most vulnerable and marginalized, magnifying existing disparities within education systems." To address these, he further explained that:

> First, we need to tackle the digital divide…Education planners need to consider issues related to access, teacher preparedness and school-family communication. Secondly, we also need to plan for inclusive learning solutions. Education authorities must take special care in planning for the diverse needs of all learners during the school closures. This is paramount for students with learning disabilities who may struggle to work autonomously and at a distance.

Thus, addressing disparities with respect to the urban/rural divide, digital divide, and access for students with disabilities, is paramount.

Assertion 3: There needs to be a radical rethinking in the way education is conceptualized.

For decades, those promulgating the need for Education for Sustainable Development have called for a different type of education that can truly facilitate a sustainable way of life for all on the planet. Similarly, the COVID-19 pandemic has forced the global and regional communities to consider what education is and what it can be to ensure that no child is left behind in times of normalcy or emergency. An education specialist from a regional organization pointed out that strategies are needed to help students who may need to 'catch up' with their peers, for instance, special tutoring or accelerated learning programs. The specialist also spoke to the need for more individualized student placements that moved beyond simply matching ages to particular grade levels. A university lecturer from Jamaica highlighted that the pandemic "provides an opportunity for teachers to transform pedagogical approaches and for schools to capitalize on creative and unique ways of delivering education."

Assertion 4: Parents need to be empowered to assist in the different facets of their children's educational journey.

Parental involvement has always been seen to be pivotal to the success of students' academic journeys. This was proven even more during the pandemic. The teachers' representative from St.

Lucia stated that it would be important to "develop a program that will assist parents in supporting students' learning, generally, but particularly in times of crisis; and also, to create a system of community support for education to provide for support in times of crises." For those who are the youngest and at critical stages of development, a university lecturer from Jamaica advised,

> We have to look at how prepared are the parents to be able to teach them, to support them, to work with them, to support their socio development (or psychosocial development) at this point in time.

And sharing from a psychological perspective, a psychologist stated,

> Also partnering with parents, I think we will have to strengthen our resolve to reach even those parents who seem unreachable and harness the power of technology and the media to do so. I think many students will be returning with issues that we might not be able to fathom yet. To address them we are going to need the input of caregivers, knowing exactly what they need to do at home, and also international integration, teaching teachers how to integrate.

Assertion 5: Governments and other stakeholders need to be proactive in planning for education.

A resilient education system must be one that is proactive and not merely reactive; one that has policies, plans and mechanisms in place to address any major or minor disruptions that might occur in 'normal' schooling due to crises and emergencies. This was underscored by a tertiary level student services representative from Jamaica who said, "Another important thing is effective planning needs to be done and policies developed that will support the purpose of education for administrators, teachers and facilitators that provide learning inside and outside the classroom." The principals' representative from Barbados similarly stated, "The policy-makers at the level of the MOE, as well as school administrators, must always be proactive, must observe the trends in education in global community as well as in our local communities so that we can prepare for any eventuality, and we can learn from experiences of individuals who have passed through this so far and have reopened."

DISCUSSION

The findings clearly indicate that education systems across the region struggled to establish alternative education access through a variety of means (most predominantly online mechanisms) in the immediate months following the onset of the COVID-19 pandemic. This move to establish alternative means of accessing education is not unlike the experience of many countries across the world as emerging research reflects similar actions globally (Pokhrel & Chhetri, 2021; Reimers, 2021). As the findings indicate, school leaders, teachers, students and parents experienced significant stress as they struggled to make adjustments to facilitate alternative means of accessing quality education. The struggle and stress for education leaders was generally centred on putting necessary structures in place to allow for a transition to online or remote teaching and learning. Within a very short time, they were expected to determine the alternative means by which their schools could continue to provide education for their students, and source digital devices for teachers (and students where available). They were engaged in planning and providing immediate training for teachers who needed support to be prepared for teaching students online. They also need to deal with a myriad of issues related to facilitating alternative education delivery during the pandemic.

For teachers and parents, the struggles and stresses were generally related to difficulties in supporting student learning online or remotely. Although some basic training in use of technology for online teaching and learning was provided for teachers, generally, these were considered insufficient as many Caribbean teachers had little or no previous experience with delivering instruction effectively within an online space. According to Schleicher (2020), while many other global educators offered some extent of training in the period of school closure at the onset of the pandemic, few indicated the need for advanced level training.

Many parents who were able to provide devices and Internet to access online instruction found that their children still had difficulties using these to engage within the online learning space created by schools and/or teachers. The findings also indicated that part of parents' frustration stemmed from the difficulties they experienced while trying to help their children understand the materials received from their teachers. Interestingly, an equal source of stress for teachers was having to deal with student issues in the online space that they felt should be handled by parents at home. Thus, rather than providing an appropriate opportunity for the strengthening of the parent-teacher collaboration to provide a supportive environment for student learning (Schleicher, 2020), we see evidence of further unravelling of the school-home partnership.

The findings in relation to students' experiences especially indicated that younger children, children from rural areas, and children from low socioeconomic status family backgrounds (or possessing a combination of all three factors) were most at risk to not access education altogether, and to being most impacted by learning loss. An additional concern facing students from low-income family backgrounds was the cessation of the school meals program across many countries due to the physical closure of schools. The absence of this program presented an increased risk to some children's health and nutritional needs. The indication that these children sub-groups are at greater risk of experiencing inequities suggests a need for instituting additional support measures for children, both during and post pandemic. Emerging research findings from developing countries such as India, Haiti, Nepal, Jordan, and Pakistan also support these initial findings (CAPRI, 2021; Kundu, 2020; Vegas, Lee & Shrestha, 2021; United Nations, 2020).

The stressful nature of the initial experiences of Caribbean educational stakeholders has implications for their psychological, social, and emotional wellbeing (Cielo et al., 2021; ECLAC & UNESCO, 2020; Lizana et al., 2021). Additionally, indications suggest that teachers at the Early Childhood level faced an additional concern, that of threats of job loss. The findings reveal that job losses have occurred among teachers within this education sector, specifically due to the closure of early childhood centres and preschools, as this education level had the most difficulty transitioning to effective online instruction. The research of Ozamir-Etxebarria et al. (2021) supports these findings and indicates that some categories of staff in the education system have suffered from job ambiguity more so than other groups.

These initial experiences are valuable for two main reasons. First, as researchers such as Brissett (2018) and Jules (2008) have noted, the Caribbean region has historically been plagued by systemic inequalities in the broader society which have resulted in disparities within the education system. The findings suggest that the pandemic has indeed aggravated inadequacies and inequities in the education systems within the region and has the potential to significantly threaten or undermine regional progress in relation to educational access and the provision of quality education for all

children. Such findings provide important insights into key areas of immediate focus for educators, education leaders and education policymakers in their attempts to mitigate potential learning loss, as well as designing current initiatives to address some of the challenges being faced within the education system.

Second, while these initial experiences noted from the findings in this paper are insufficient to fully understand the magnitude of the impact of these various concerns within education, they do support the need and provide some directions for future research into the impact of the COVID-19 pandemic on teaching and learning across the schools in the region. This was a need supported by Bertling et al. (2020) and OECD (2020).

As was the case with the education sector globally, the education system in the Caribbean was beset with various challenges because of the pandemic. These challenges, however, were addressed in various ways. Similar to other countries worldwide (Reimers, 2021), several e-learning platforms, technologies and resources were utilized to ensure access and agility in the sectorial response to the pandemic. Additionally, to support capacity and versatility with respect to the use of the various technologies and resources, the Caribbean, like counterparts across the world, sought to address impediments and losses which could be caused by lack of training and ensure that educators participated in various training efforts that were mounted (EdTech Hub, 2020; Schleicher, 2020). Other substantive measures included increasing communication and collaboration amongst various stakeholders, ensuring the institution of guidelines, monitoring of educational quality, and ensuring that the needs of students with disabilities are met.

Based on lessons learned from experience to date, ensuring resilience in the sector is an urgent need. First and foremost, perhaps, is that current inequalities which were highlighted and augmented by the pandemic must be addressed. Additionally, empowering parents to ensure continuity of learning and adequate parental support of the process is also a given. Across the globe, the pandemic resulted in psychological impacts on young people, including anxiety, depression and mental stress (Cielo et al. 2021) and negative impacts on teachers' mental and physical health as well (Lizana et al. 2021). Consequently, ensuring that psychological support and coping mechanisms are in place for school staff, students and parents will be critical with respect to building a resilient education system. Other measures, such as collaborative efforts among all stakeholders and incorporating technology into education, must be instituted. Additionally, in alignment with Li and Lalani's (2020) research which suggests that the transition to online learning could be the catalyst for newer, relevant, more effective ways of schooling and education, the pandemic has forced educators in the region to consider the current modes and emphasis of schooling and to ponder the possibilities for a paradigmatic shift in education, a point raised by several webinar panellists.

CONCLUSIONS AND RECOMMENDATIONS

This study has highlighted that, like in most regions of the world, the education systems of the Caribbean were, and continue to be, severely challenged by the impact of the COVID-19 pandemic. This study has found that most countries were unprepared for the challenges of the pandemic which deepened pre-existing inequities in the education systems, and placed parents, students, and teachers under great psychological stress. These challenges created wide-scale disruptions in schooling, with some students having not had face-to-face schooling for over eighteen months or more, a reality

which will worsen the prospects of socio-economic well-being and increase the financial challenges of families and economies well into the future.

The responses of Caribbean countries to the pandemic include training of staff, strengthening of communication modalities, development of ICT systems and increased collaboration among various arms of the State. While these efforts are being made, educational stakeholders in the countries of the Caribbean recognize that far more needs to be done both in terms of strengthening existing efforts and exploring other strategies.

The study has also affirmed that educational leaders and policymakers have identified five key lessons that the pandemic has taught. These are:

1) The importance of preparation and pre-crisis/contingency planning;

2) The centrality of collaboration as a strategy;

3) The urgent need to address inequities in society and in educational systems;

4) The obligation to re-think how the education systems operate and re-fashion these systems for greater responsiveness and agility;

5) The valuable roles parents play in the education process and recognizing the challenges many face in the execution of those roles, the need to empower and enable them to be more effective in their roles.

The findings and conclusions of this study suggest four urgent actions which must be taken by Caribbean governments to achieve and maintain resilience of their countries' education systems. These are:

1) The establishment of national education sector crisis management mechanisms similar in scope and powers to offices of Disaster and Risk Management;

2) The revamping of the education systems to make them capable of operating in 'hybrid' modes (face-to-face and online) on an ongoing basis, with in-built capability for adaptation to either use synchronous or asynchronous modality, fully, or a combination of both, simultaneously;

3) Public investments in telecommunications infrastructure to ensure accessibility for learners, especially in rural areas when online modes of delivery are being used; and

4) Continuing educational/lifelong learning opportunities for parents which will provide exposure to the curricula being used in schools and the training of proxy parents (drawn from the education sector) who would serve as local/district school resource officers (or Community Education Aides).

REFERENCES

Azevedo, J., Hasan, A., Geven, K., Goldemberg, D., & Iqbal, S. (2020, September 10). Learning losses due to COVID19 could add up to $10 trillion. *World Bank Blogs*. https://blogs. worldbank.org/education/learning-losses-due-covid19-could-add-10-trillion

Bertling, J., Rojas, N., Alegre, J., & Faherty. K. (2020). A tool to capture learning experiences during COVID-19: The PISA global crises questionnaire module. *OECD Education Working Papers, No. 232*. OECD Publishing. https://doi.org/10.1787/9988df4e-en.

Brissett, N. (2018). Education for social transformation (EST) in the Caribbean: A postcolonial perspective. *Education Sciences*, *8*(4), 197. https://doi.org/10.3390/educsci8040197

Caribbean Centre for Educational Planning (CCEP). (2020). *Learning from the COVID-19 pandemic: Imperatives and opportunities for building resilient education systems in the Caribbean* [Webinar].

The Caribbean Community (CARICOM). (n.d.). *CARICOM human resource development 2030 strategy: Unlocking Caribbean human potential*. CARICOM.

Caribbean Policy Research Institute (CAPRI). (2021). *Time out: The impact of COVID-19 on education*. CAPRI. https://www.capricaribbean.org/sites/default/files/public/documents/ report/time_out_the_impact_of_covid_on_education.pdf

Cielo, F., Ulberg, R., & Di Giacomo, D. (2021). Psychological impact of the COVID-19 outbreak on mental health outcomes among youth: A rapid narrative review. *International Journal of Environmental Research and Public Health, 18*(11)*, 6067. doi:10.3390/ijerph18116067

ECLAC/UNESCO (Economic Commission for Latin America and the Caribbean/United Nations Educational, Scientific and Cultural Organization). (2020). Education in the time of COVID-19. *COVID-19 Report*. https://repositorio.cepal.org/bitstream/ handle/11362/45905/1/S2000509_en.pdf

EdTech Hub. (2020). *The effect of COVID-19 on education in Africa and its implications for the use of technology: A survey of the experience and opinions of educators and technology specialists.* DOI 10.5281/zenodo.4018774

Jules, D. (2008). Rethinking education for the Caribbean: A radical approach. *Comparative Education*, *44*(2), 203-214.

Kahlke. R. M. (2014). Generic qualitative approaches: Pitfalls and benefits of methodological mixology. *International Journal of Qualitative Methods*, *13*, 37-52. https://doi. org/10.1177/160940691401300119

Kundu, P. (2020, August 17). Schooling during the pandemic: The Indian experience. *Southern Voice*: http://southernvoice.org/schooling-during-the-pandemic-the-indian-experience/

Li, C., & Lalani, F. (2020, April 29). *The COVID-19 pandemic has changed education forever. This is how*. https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/

Lizana, P. A., Vega-Fernadez, G., Gomez-Bruton, A., Leyton, B., & Lera, L. (2021). Impact of the COVID-19 pandemic on teacher quality of life: A longitudinal study from before and during the health crisis. *International Journal of Environmental Research and Public Health*, *18*(7), 3764.

Menefee, T., & Bray, T. M. (2015). *Education in the commonwealth: Education for equitable development.* Commonwealth Secretariat.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation.* Jossey-Bass.

Ministry of Education, Youth and Information (MOEYI). (2017). *Chief inspector's report 2017.* MOEYI.

Organisation of Eastern Caribbean States (OECS). (2012). *OECS education sector strategy 2012-2021: Every learner succeeds.* OECS. https://www.oecs.org/en/our-work/knowledge/library/education/oecs-education-sector-strategy-2012-2021-may-2012

Ozamiz-Etxebarria, N., Santxo, N., Mondragon, N., & Santamaría, M. (2021) The psychological state of teachers during the COVID-19 crisis: The challenge of returning to face-to-face teaching. *Frontiers in Psychology, 11*, 1-10. https://doi.org/10.3389/fpsyg.2020.620718

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.

Reimers, F. M. (Ed.). (2021). *Implementing deeper learning and 21st century education reforms: Building an education renaissance after a global pandemic.* Springer. https://link.springer.com/content/pdf/10.1007%2F978-3-030-57039-2.pdf

Saavedra, J., & Kopp, W. (2020, October 15). To rebuild our education systems, we must focus first on leadership. *World Bank Blogs.* https://blogs.worldbank.org/education/rebuild-our-education-systems-we-must-focus-first-leadership

Schleicher, A. (2020). *The impact of COVID-19 on education. Insights from Education at a Glance 2020.* Organization for Economic Co-operation and Development.

Thompson, C. S. (2020). *Education and development: Policy imperatives for Jamaica and the Caribbean.* Kingston: The University of the West Indies Press.

United Nations (2020). *Education during COVID-19 and beyond* [Policy brief]. https://www.un.org/development/desa/dspd/wpcontent/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf

Vegas, E., Lee, S., & Shrestha, U. (2021, August 23). How has education technology impacted student learning in India during COVID-19. *Brookings.* https://www.brookings.edu/blog/education-plus-development/2021/08/23/how-has-education-technology-impacted-student-learning-in-india-during-covid-19/

APPENDIX 1: OBJECTIVES OF WEBINARS

First Webinar

(1) To provide a platform for educational stakeholders to share their experiences in responding to the challenges posed by COVID-19 and its impact on the education sectors of the Caribbean region

(2) To facilitate an assessment of how educational institutions have progressed relative to their core mandate since the crisis of COVID-19

(3) To identify emerging lessons for assisting in strengthening regional, national, and institutional responses of all stakeholders

(4) To uncover initial insights which must inform the redesign of the education systems of the Caribbean region in order to create more resilient and inclusive societies and economies

Second Webinar

(1) To examine some of the key factors which shape the deficits in the educational landscape of developing countries pre and post COVID-19

(2) To explore approaches being used by a sample of countries to overcome the challenges they have faced in delivering quality education pre and post COVID

(3) To discuss lessons and insights that Caribbean educational policy makers, practitioners, strategists, and other stakeholders may learn, and implement to strengthen the response of Caribbean countries in dealing with the pre-existing challenges facing the education sector as well as those created and exacerbated by the COVID-19 pandemic.

Third Webinar

(1) To examine the state of access to teaching and learning via online

(2) To evaluate the teaching and learning experiences of teachers and students since the onset of COVID-19 and remote teaching and learning

(3) To discuss plans developed or being developed by relevant ministries of government and telecoms providers to improve connectivity, reliability, and access

(4) To explore various strategies for effective and sustained delivery of learning using non-face-to-face modalities as well as safer uses of face-to-face modalities

(5) To agree principles, reflecting the diverse expectations and needs of stakeholders, to guide the build out and development plans for achieving last mile connectivity and creative learning options

APPENDIX 2: PANELISTS

Panelists included representatives from:

- Ministries of Education

- Regional Examination organizations

- Teachers and Teachers' unions

- School Principals' Associations

- University student guilds

- University lecturers

- Tertiary-level institutions managerial staff

- Telecommunications entities

- Parents

- International and regional entities such as the United Nations Educational, Scientific and Cultural Organization and the Inter-American Development Bank