From Traditional to Home-Based Learning: Challenges of Elementary School Teachers during COVID-19 in Trinidad and Tobago

Steve Warner[1], Joanne Mohammed[2], Maurina Gross-La Borde[3]

Abstract

This study has explored the perspectives of elementary school teachers of their challenges during the COVID-19 pandemic, as they transitioned from their traditional mode of facilitation to a program called Home-Based Learning (HBL). The objectives of the study, which focuses on the implementation of HBL for elementary school students, from March 2020 to June 2021, were to investigate elementary school teachers' perspectives on their readiness for HBL; to determine elementary school teachers' perspectives on their students' readiness for HBL; and to investigate elementary school teachers' perspectives on their implementation of HBL. There was a need to determine how teachers, students and parents responded to this sudden shift. Data were collected through semi-structured interviews with 40 teachers from all class levels, number of years teaching and from the eight educational districts. The results demonstrated that despite the efforts of the Ministry of Education (MoE) to provide support and assistance, teachers struggled with instructional strategies and pedagogy, connectivity and technology concerns, parental support and involvement, burnout and being overwhelmed with the long hours preparing for online and offline students and lack of continuous professional development. It was clear that teachers used creative and innovative means to ensure learning continued, striving to make HBL work for their students. It is recommended that the MoE design and implement a continuous and structured professional development programme for teachers, ensure that technology resources and infrastructure are available and sustained and that internet connectivity be reliable and suitably fast in all elementary schools.

Keywords: *Home-based learning, Trinidad and Tobago, teacher training, online learning*

1. Introduction

COVID-19 has made havoc on all institutions and organizations, some more than others, and has caused many disruptions on movement and social

---

[1] University of the Southern Caribbean Email: stevewarner@usc.edu.tt
[2] University of the Southern Caribbean Email: joannemohammedo03@gmail.com
[3] Chaguanas Government Primary School Email: maurinag@gmail.com

interactions in the fight to curtail its spread and the fatalities and protect human life. Most notably is the education system, where the COVID-19 pandemic has generated one of the greatest disturbances of education systems worldwide in history, influencing and obstructing almost 1.6 billion students in more than 190 nations and in almost all continents (United Nations, 2020). In March 2020, the government of Trinidad and Tobago closed all teaching/learning institutions. Elementary schools remained closed to students until December 2021, as plans were being made for reopening sometime in 2022, based on the containment of the spread of the virus (MoE, 2021). Preparations were made for online learning and the continuation of the teaching and learning process by the Ministry of Education (MoE, 2020). Online platforms were also designed and implemented and some training for teachers conceptualized. Many issues were highlighted in elementary schools as they grappled with instructional strategies in an online space. Some schools were able to make the transition reasonably well, but many battled to provide a learning environment to replace face-to-face instructions.

During the COVID-19 pandemic, teachers, students and parents of elementary schools in Trinidad and Tobago (T&T) managed and struggled with the transition from delivering the curriculum from face-to-face classroom teaching instructions to Home-based Learning (HBL). Technology has become a central persuading feature in education today (Winter et al., 2021). Before the pandemic, elementary schools in Trinidad and Tobago were not equipped with an abundance of trained teachers to infuse technology in teaching and learning neither was there sufficient hardware and software, and infrastructure to deliver teaching and learning using technology (Johnson et al., 2016; MoE, 2017; Warner, Malik & Mohammed, 2021). There exist many challenges and several external factors to teachers such as who will provide continuous professional development training and support to elementary school teachers and maintenance of existing technology resources (Warner, Malik & Mohammed, 2021). This suggested that if teachers had some vital training to infuse technology in their teaching and learning, the transition could have been fraught with less pedagogical challenges.

The MoE of Trinidad and To0bago coined their initiation of continuing learning, during COVID-19, as "Home-Based Learning" (HBL). HBL consisted of two options, namely, digital and paper based – nicknamed 'stay at home learning'. The MoE stated that schools were able to provide instructions and support for students to access a range of both online and hardcopy Home-Based Learning materials (MoE, 2021). Thus, learning was intended to continue uninterrupted. The MoE also stated that teachers are familiar with and competent in using various tools to engage and monitor the progress of students for HBL

(MoE, 2021). The use of the Singapore Student Learning Space (SLS) online platform to monitor the students' learning progress and their submission of assignments were encouraged (MoE, 2020). The inclusion of real-time video conferencing platforms for teachers to conduct their lessons, where necessary, was available through the MoE (MoE, 2021).

In elementary schools, parents/guardians or responsible adults, were asked to be present during online sessions or to work with their children in completing the packaged material and returned timely for correction and further guidance. This paper seeks to learn and investigates, how HBL was implemented and to determine the advantages and disadvantages, the challenges and issues, from the perspectives of teachers, who were in the frontline of HBL. Therefore, this study is relevant.

1.1   Research Objectives

The study focuses on the implementation of the Home-Based Learning (HBL) programme for elementary school students from March 2020 to June 2021, with the following objectives:

1. To investigate elementary school teachers' perspectives on their readiness for HBL.
2. To determine elementary school teachers' perspectives on their students' readiness for HBL.
3. To investigate elementary school teachers' perspectives on their implementation of HBL.

1.2   Research Questions

1. What are the perceptions of elementary school teachers about their readiness for HBL?
2. What are the perceptions of elementary school teachers about their students' readiness for HBL?

1.3   Significance of the Study

This study is significant from multiple perspectives. It would help the policymakers to learn if the initiatives of Home-Based Learning were effective during the COVID-19 pandemic as a teaching/learning model. It would also reveal the perceptions of teachers about the efficacy and usefulness of the program. The MoE should also be interested to learn about the challenges that were encountered by teachers and students, as well as what worked well. Based on the findings of the study, the policymakers might be able to revise the existing program with relevant strategies to make it more beneficial and valuable as a teaching/learning system.

2. Literature Review

Due to the schools being closed for instructions from March 2020 to June 2021, the MoE of Trinidad and Tobago instituted Home-based Learning (HBL), whereby teachers were expected to take responsibility for delivery of the curriculum to students via remote methods using hybrid learning (MoE, 2021). School buildings remained opened and resources were fully available for use by teachers as required in the delivery of the curriculum (MoE, 2020). Work from home arrangements for teachers, approved by principals, consisted of two formats, namely, category 1- students with access to devices and connectivity and category 2- students with no access to devices or connectivity (MoE, 2020). Some teachers, therefore, had to prepare packages to be collected at school, corrected and returned to students weekly, while others only prepared for online instructions.

The MoE created a scheduled timetable and students were expected to engage in the planned activities. Assignments were to be uploaded and students complete and submit online for feedback and correction or via packages prepared by teachers. Teachers utilized the modified Curriculum Guide in preparing for the online classes, made accessible on the School Learning Management System (SLMS) (MoE, 2020). Packages for students were prepared using the modified Curriculum Guide. Packages were to be collected on a weekly basis. Completed assignments were dropped off by parents/students on the same day of collection of new packages. It was expected that teachers will collect assignments, correct and give written feedback.

The MoE initially provided some online training and print material for remote learning to all teachers to navigate from face-to-face learning to HBL. A reduction of the curriculum focused on mastery of the core objectives and skills. There were many measures that the MoE did to ensure that the transition for teachers were not fraught with difficulties. For example, print resource materials were given to schools, the "Adopt a School" device donation program targeting corporate Trinidad and Tobago and encouraging alumni associations to be active and help students who needed devices.

Milman (2020) and Hodges et al., (2020), described the online teaching, which is occurring during the pandemic, as Emergency Remote Teaching (ERT) and not just normal online teaching. They proposed that ERT is an appropriate term. This alteration did present challenges for teachers and students alike (Milman, 2020). It is fair to state that not all students had access to the appropriate technology and home support and that all teachers or students would be successful online (Palloff & Pratt, 2013). This suggested that students and

teachers moved into an environment, a space, where most of them were unfamiliar.

Teaching in online learning environs requires different pedagogical approaches than teaching in face-to-face classrooms (Gurley, 2018). How educators are equipped to teach theoretically impacts the quality of instruction provided in online learning environments. Online teaching requires instructors to move beyond old models of pedagogy into new practices that are more facilitative, where attention needs to be paid to the development of a sense of community within the group of participants for the learning process to be successful (Palloff & Pratt, 2000). To achieve success in transitioning to online learning, several key areas were suggested, which are: ensuring access to and familiarity with the technologies to be used; establishing guidelines and procedures, generated with significant input from teachers and "buy-in" from teachers; promoting collaborative learning; and creating a double or triple loop in the learning process to enable participants to reflect on their learning (Simonson et al., 2014).

Teachers' readiness for online learning is referred to as both mental and physical preparation for an online teaching environment (Borotis & Poulymenakou, 2004). Kaur and Abas (2004) stated that promoting and implementing online learning readiness helped teachers design online teaching strategies and effectively achieved their online goals. One of the reasons that online learning often failed is that teachers try to imitate face-to-face teaching styles and while some may work, new pedagogies were required to infuse technology in teaching and learning (Ncube, Dube & Ngulube, 2014). This advocated that for online teaching to be efficient, effective and successful training is required. Not just for a day or a few hours, but structurally and continuously.

Teachers are required to have the correct attitudes and beliefs towards technology use in the classroom (Schlichter, 2020). Additionally, their skills, efficacy and knowledge to adapt to new pedagogical concepts and strategies and sufficient training with infusing technology in teaching and learning must be seen as important (Ertmer, 1999; Hepp et al., 2015; Kim, 2016; Picton, 2019). Thus, the thinking of teachers must undergo some changes for online learning.

Duraku and Hoxha (2020) identified some factors that make technology integration successful in face-to-face classroom teaching and learning. The findings revealed that it is important to understand the types of interchanges required between teachers, students, parents and technology (Honey et al., 2000). In the group of elements influencing opportunities to successfully integrate

technology into the classroom and make it part of the learning process, it has been suggested that the teachers' perspective on teaching has an impact.

Other factors influencing the transition to online teaching are teachers' resistance to change psychologically (Duraku & Hoxha, 2020). According to studies that explored the psychological factors affecting teachers' ability to change to online learning, teachers stated feeling uncomfortable, lost, and dubious, worrying when they will return to what makes them feel delighted, familiar and secure (Flamholtz & Randle, 2008; Ibrahim et al., 2013). Additionally, some teachers resisted change due to stress, accumulated fatigue, and mental exhaustion, which, in some instances, depressingly affect their performance and level of job contentment (Margolis & Nagel, 2006).

During the COVID-19 pandemic, the MoE of Trinidad and Tobago, alike many others around the world, instituted learning from home and placed teachers, students and parents in elementary schools in an unfamiliar learning environment (MoE, 2021). The rush to remote teaching and learning has highlighted the need for teachers and schools to be flexible, adaptable and agile to unforeseen circumstances (UNESCO, 2020).

An article from the Trinidad Express Newspaper highlighted that the delivery of education during school closure in Trinidad and Tobago has been met with many challenges (Hunte, 2020). The article, based on a report from the Joint Select Committee meeting discussing the MoE's strategies for ensuring continuity in the delivery of education amid the COVID-19 pandemic, espoused that there was a lack of accountability of teachers and the lack of access to the internet and devices for many students, which accounted for an ineffective process of teaching and learning. There were between 70,000 and 90,000 students who did not have access to internet and devices and there were numerous issues, for both students and teachers, with internet connectivity. The article further reported that there was no systematic curriculum being used except for those in Standard 5, where students were preparing for the Secondary Entrance Assessment (SEA).

The Organization for Economic Co-operation and Development (OECD) postulates that education ministries should aim to strengthen commitment between schools and parents to further improve information and guidance to parents on effective practices for supporting their children's learning during the COVID-19 pandemic (OECD, 2020). At the same time, they suggested that teachers need support to incorporate technology effectively into their teaching practices and methods to help students overcome some of the difficulties that are associated with this form of learning. Supporting and guiding teachers via training about the use of digital resources for pedagogical practice

and promoting teaching practices adapted to this context is crucial to ensure that ICT tools and resources are infused effectively (OECD 2020; MoE, 2020).

The Cambridge Online Dictionary defines a novice as a person new to and inexperienced in a job or situation. The COVID-19 pandemic, therefore, created without warning, novice educators who were trained and accustomed to delivering the curriculum in a purely face-to-face environment. Whenever there is to be a transfer from face-to-face to online teaching and learning, institutions provide training and support and continuous professional development (Friedman, 2020). Gold (2001) stated that the transition from classroom instruction to online instruction is complex and involves specialized training in the techno-scientific aspects of delivering quality education to students. He added that specialized training is required on how to foster knowledge acquisition within this new environment and that pedagogy was a significant challenge.

Irby (2014) stated that 48 competencies are needed to develop instructional strategies for mobile learning. These competencies were grouped into seven areas: communication, technology, learning, course management and policies, course content, assessment and evaluation, and instructor skills. Further development of these skills through professional development is recommended. Roy (2015) also corroborated the need for technical support systems in place to work effectively in the online environment. Additionally, further training in using technology in terms of assistive technologies for special needs students, time management and having students remain motivated without in-person interaction was recommended (Dhawan, 2020).

Mecham et al. (2021) stated that the following themes emerged from the experiences of new teachers during the pandemic: feeling overwhelmed by the sudden change, uncertainty and a growing list of demands; inconsistent levels of support and collaboration, which often left them navigating new territory alone; technology became a method of delivering instruction and material to students-however, this was hindered as many students did not have the resources they needed; adaptability became a necessary skill as teachers constantly had to adjust and modify to make their instructions successful and meet the needs of students; and parents became an integral part of the learning team and challenged novice teachers to quickly become comfortable in working closely with families.

Kalloo et al. (2020) advocated that more needs to be done in preparing teachers to be adaptable in crisis periods as the COVID-19 pandemic. Most importantly, their study highlighted the need for continuous and structured professional development for teachers to be instituted and become part of the culture of the education system in T&T. The Inter-American Development Bank (IDB, 2020) corroborated the need for teacher training for teachers in this new

environment and reported the demand for better connectivity, especially in elementary schools and suburban areas. Indeed, most elementary school teachers were novice educators to online learning, and they had to adapt creatively to meet the needs of their students in a time of crisis.

3. Research Methodology

3.1 Research Design

This study employed a qualitative research design as it allowed in-depth probing of an issue (Patton, 2002). Interviews using the one-on-one and focus group approach were utilized. Specifically, semi-structured interviews, consisting of a list of open-ended questions, determined how teachers perceived their handling of HBL in terms of challenges and dealing with students and parents' involvements in the learning process. The support from the MoE was also considered from the teachers' perspective. The open-ended nature of the questions provided opportunities for the researchers and interviewees to discuss their experiences in greater detail. When the interviewees had difficulties in answering a question or hesitated, the researchers were able to probe further. Three types of probes were used, as stated by Barriball and White (1994), namely, the detailed-oriented probe, the elaboration probe and the clarification probe.

The researchers used recorded interviews as their data collection source as they utilized the experiences of the research participants to understand the research focus based on their practice. Ravitch and Carl (2016) noted that experience questions focus on what participants' experiences are. Jacob and Furgerson (2012) noted that the researchers' main questions form a scaffold of the interview process thus ensuring that the research questions are answered based on the experiences of the research participants.

3.2 Population and Sample

The population of the study consisted of 6978 elementary government and government-assisted elementary school teachers in Trinidad. Stratified purposeful sampling strategy was used as suggested by Patton (2002) and Ottenbreit-Leftwich et al. (2010). Strata were based on the different level groupings (Group 1- Infant Level 1 and Infant Level II - ages 5 to 7 years; Group 2- Standard One, Standard Two and Standard Three – ages 7 to 10 years; Group III- Standard Four and Standard Five – 10 to 12 years). There were 7 Educational Districts in Trinidad and participants were chosen from each, with the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner (Bernard, 2002). The teachers selected were also with varying number of years of teaching elementary school - from less than 5 years to over 20 years in

teaching face-to-face. The total sample size consisted of 40 elementary school teachers.

3.3   Instrumentation

This study interviews used both one-on-one and focused-groups. Thirty-two participants were interviewed through five focused-group interviews with 6-7 interviewees in each group. Eight teachers were interviewed through the one-on-one method. Focused-group interviews were 30-35 minutes long while one-on-one 17-24 minutes. All in all, thirteen interviews produced 334 minutes (3 hours and 28 minutes) of data. Their details are given below;

Table 1

Details of Interviews

Interview Code	Interview Type	Number of Participants	Participants	Strata	Duration
FG1	Focused-group	6	P1-P6	Group 1,2 3	35 min
FG2	Focused-group	6	P7-P12	Group 1,2,3	30 min
FG3	Focused-group	7	P13-P19	Group 1,2,3	30 min
FG4	Focused-group	7	P20-P26	Group 1,2,3	30 min
FG5	Focused-group	6	P27-P32	Group 1,2,3	34 min
Int1	One-on-one	1	P33	Group 3	17 min
Int2	One-on-one	1	P34	Group 3	20 min
Int3	One-on-one	1	P35	Group 2	17 min
Int4	One-on-one	1	P36	Group 1	20 min
Int5	One-on-one	1	P37	Group 2	22 min
Int6	One-on-one	1	P38	Group 1	25 min
Int7	One-on-one	1	P39	Group 2	24 min
Int8	One-on-one	1	P40	Group 2	20 min

FG=Focus group interviews and Int=Individual interviews

Interview guide for this study consisted of five main interview questions pertaining to the research objectives. One interview question was about participants' perceptions about their readiness for Home-based learning (HBL), one about their perceptions on students' readiness for HBL, and another about the implementation of HBL and different kinds of challenges that they faced in implementing HBL. The other interview question was based on teachers' perceptions on the benefits of HBL. When the interviewees had difficulties in answering a question or hesitated, the researchers probed further through supplementary questions. Three types of probes were used. Due to the pandemic, all interviews were conducted virtually, recorded and transcribed.

4. Data Analysis & Interpretation

This study employed Marshall and Rossman (2006) model to analyze the interview data. Under this model, the study generated codes and categories and then presented them in the form of a report. Verbatim quotations were also used due to their significance in qualitative research (Corden & Sainsbury, 2006). The findings of the study are as follows:

4.1 Perceptions of Teachers' Readiness to Implement HBL

The first research question was about the perceptions of the teachers concerning their readiness to implement HBL. All the teachers stated that they were not equipped and prepared for the online version of Home-based learning. The teachers, who had recently graduated from the Bachelor of Education degree, explained that they did courses on technology integration in teaching and learning and blended learning, but that did not make them ready for this experience. Teachers who spent over fifteen (15) years in a face-to-face classroom also said that the transition was devastating. According to P5, "We had absolutely nothing in place and were just flung into this environment. It took us more than six (6) months to feel a bit comfortable with Home-based learning, especially the online version." P8 and P33 also commented that "The initial training from the Ministry (MoE) to assist with online learning was a good gesture but was not sufficient neither continuous. The hours of online work expected were unreasonable" and "I can easily say that I was absolutely not ready and in no way prepared. I had to learn so many things to adapt to this online environment", respectively. P13 said emphatically that "it took me eight (8) months to not only be ready but to be comfortable in this online environment". In terms of preparing packages for students, teachers needed no training to organize, send and correct work done by their students. P40's recounted that, "I only taught online from the end of January 2021 and it was very difficult. I was not ready for it because for the past 20 years, I have been teaching face-to-face and the initial training we received from the ministry

(MoE) did not really prepare me for online learning". P40 continued, "It showed the use of WhatsApp, but it did not help on my delivery (of the curriculum). This was a real challenge for me".

4.2   Perceptions of Students' Readiness for HBL

The second research question seeks to determine teachers' perceptions on students' readiness for HBL. The responses varied depending on whether they used the packaged option or online facilitation. The teachers who used packages for their students reported that the implementation was straightforward. P36 stated, "Due to the socioeconomic issues of the students in my class and school, I prepared packages for all the students in my class. It was only until January 2021 that I was able to have online sessions". Some teachers reported having to be engaged in preparing packages for students without devices and or internet connectivity. P13 stated "I used WhatsApp on parents' phones to send and receive work instead of packages", while P14, teaching a Standard 2 class said, "my students had some difficulties at first using Google Meets and Google Classrooms but adapted well." Some teachers said that students with devices and internet connectivity were ready and eager from the start. Others lamented that the different teaching platforms posed problems initially for student. P25 commented, "Although students were happy to use the devices and be online, psychologically they were not ready to learn online. I had to do a great deal to make online learning, a learning environment for my students". Some of the teachers said that they observed students adapting to online learning faster than them but were easily distracted at times

4.3   Perceptions of Teachers' on Implementing HBL

There were varying accounts of how teachers implemented HBL. Some teachers only used packages until parents were able to obtain devices and afford connectivity. Some teachers used WhatsApp, Google Classroom and Zoom to deliver the curriculum. The Standard Five classes were given priority and provided with laptops due to SEA but closer to the examination, the packages were used as well for practice tests – students' parents were asked to leave the test booklets at school and the teachers collected, corrected and returned them to school.

Some teachers commented that they were overwhelmed initially by the transition to online learning and the amount of uncertainty and challenges to implement online teaching and learning. P40 explained, "I had to find a medium, deal with parents in my online class, prepare packages and spend a great deal of time preparing appropriate online lessons." Some teachers also said that the scheduled hours of work were not appropriate for Infants One and Infants Two, as those children complained of headaches and eye-pain from looking at the

screen for prolonged periods. There were varying times to implement the curriculum. Some teachers had flexible times and worked 3 days a week while others worked 5 days.

Teachers reported using PowerPoint presentations, Web 2.0 tools and Open Educational Resources (OERs) in online delivery and students welcomed the videos and other online features during these lessons. Teachers shared that it took much more time to locate and use appropriate tools and resources for students' learning.

4.4   Challenges Encountered by Teachers while Implementing HBL

All the teachers pointed out various challenges with implementing HBL. The unanimous trial cited by teachers was unreliable internet connectivity. P22 stated, "the unreliability of internet connectivity for students and I was a real bother. I either had to wait on students to reconnect or repeat myself so many times that everyone was being affected negatively." Some of the teachers explained that they had to decide for themselves which media to use for online learning, based on the type of available devices. Some teachers used WhatsApp to send and receive assignments on parents' cell phone – some parents had to use their phones at work and their children only received their assignments on evenings. P19 stated, "My students had desktops, laptops, tablets and cell phones. The students with cell phones had a difficult time navigating from Google Meets to Google Classroom, and this was an issue I had to contend with very often".

Another challenge for some teachers was the delivery of the curriculum. They stated that to prepare for online students and those with packages simultaneously proved disadvantageous to the offline students. Some students returned the packages completed but many returned them incomplete. P24 stated, "I tried contacting parents to encourage them to have their children complete their packages but to no avail." Some parents were also tardy in not returning the packages on time and incomplete and thus affected their child's work tremendously. P9 also said, "The hourly and daily interruptions of unreliable internet connectivity was a challenge for teaching and learning and effectively ensuring that the curriculum was delivered."

The lack and sometimes no supervision by parents during online sessions posed major problems with some students. This was unavoidable as some parents had to work and there was nobody to assist with the supervision. P4 explained, "Some of my students came on when they wanted and exited whenever it suits them. And they had a host of excuses such as my camera and microphone are not working and their internet connection dropped."

Parents' involvement in class with their children was seen as positive in many instances but at times teachers had to deal sternly with them. The most

common problems teachers quoted was that parents prompted their children when teachers asked questions and their child could not respond. P29 said, "I realized and heard parents giving their children answers. This happened several times until I stopped the class and addressed this concern with the parents." Another issue with parents for some teachers was when parents called their children out of class to do simple things as opening the door when someone knocks and other household chores. P3 said that a parent was told, "Please don't call your child out of class please because he is in class."

5. Discussion and Conclusion

COVID-19 indeed caused disruptions in the education system throughout the world. In Trinidad and Tobago, elementary school remained closed to face-to-face instructions from March 2020 to December 2021. Teachers continued to deliver the curriculum through Home-based Learning. This study analyzed, from elementary school teachers' perspectives, what their transition to online learning entailed. One of the findings of the study revealed that elementary school teachers were not ready for the transition to online learning, as they were all trained and practiced solely in a face-to-face environment before the COVID-19 pandemic and they did not have the necessary preparedness and requirements for such an environment. This result is consistent with research conducted by Milman (2020), Palloff and Pratt (2013), Gurley (2018), Borotis and Poulymenakon (2004), and Simonson et al., (2012). Although, the teachers who graduated recently from the Bachelor of Education degree were exposed to blended learning and infusing technology in teaching and learning, these teachers reported that this did not prepare them for the sudden shift to online facilitation and learning. These findings are similar to the research analysis from Gurley (2018), Simonson et al., (2012). This suggested that teachers required training in pedagogy and implementing online learning and to have the mental and physical preparation for online learning.

Teachers from the sample responded that they lacked and required continuous, planned and structured training and support to assist with the change to online learning and throughout the pandemic as this was all new to them. This finding corroborated what the literature suggested about the need for specialized training, continuous professional development and support as being essential in the transition from face-to-face learning to the online environment (Gold, 2001; Irby, 2014; Roy, 2015).

This study also revealed that some teachers suffered burnout and exhaustion due to the amount of time spent preparing work for online learning, dealing with students and parents online and an enormous amount of screen time. This is consistent with the research findings of Millman (2020). This study

revealed that students' readiness for HBL depended on whether they had devices and reliable internet connectivity for online and whether they received and completed packages and gained timely access to responses. This was consistent by the report of the Joint Select Committee of the government of the Trinidad and Tobago, which was reported in the Express Newspaper (Hunte, 2020). The newspaper reported that between 60,000 and 90,000 students in elementary and secondary school were without devices. The United Nations Economic Commission for Latin America and the Caribbean (2021) and Hunte (2020) suggested that HBL's option of packages was applicable to many students due to the no devices and a lack of consistent internet connectivity.

Teachers at elementary schools were allowed into their student's home via online learning as cameras and microphones were left on during online class sessions. Parents were also given the opportunity to witness how teachers implemented the curriculum. This study revealed that for most teachers and parents this was not a problem, but some had challenges until certain dialogue were pursued between how teachers expected parents/guardians and other responsible adults to behave during online class sessions. This is consistent with studies conducted by Roy (2015), suggested that if teachers were trained and parents knew what to expect in such circumstances, the experience would have been better handled. Teachers and parents learnt tremendously from their interactions and in the end, there were more positive. Teachers empathized with some students and parents also with teachers as both were brought face-to-face with experiences that classroom teaching will not stimulate.

Teachers complained of unreliable connectivity when engaging in online learning. This was not only for sub-urban schools but throughout the country. This accounted for disruptions of classes. The number of students without devices and those with devices and no internet connectivity gave rise to some teachers relying on packages and online learning. The package system also had some challenges to teachers when they were returned incomplete. All these issues were consistent by the Joint Select Committee which was established by the government of Trinidad and Tobago, into the implementation of HBL and reported in the Trinidad and Tobago Express Newspaper (Hunte, 2020).

6. Recommendations

Findings of the study bring implications and suggestions to further improve and highlight the challenges of teachers in elementary school, as they undertook their teaching responsibilities during the COVID-19 pandemic.

1. There was a serious and urgent need to listen to elementary school teachers as they traversed and transitioned to online learning and a greater demand for infusing technology in the teaching and learning process.

2. Formal training in pedagogy and the skills and resources are also required for effective and efficient implementation. There is therefore an urgent need for policymakers and administrators of the MoE to note and make the necessary changes to assist and support elementary school teachers during times of home schooling and beyond in terms of technology integration in teaching and learning.

3. Continuous and structured professional development training for administrators and teachers must be developed and implemented. It is time that professional development be structured, continuous and valued as an investment.

References

Barriball, K., & White, A. (1994). Collecting data using a semi-structured interview: A discussion paper. *Journal of Advanced Nursing, 19*(2), 328-335.

Bernard H. (2002). *Research methods in anthropology: Qualitative and quantitative approaches.* 3rd Alta Mira Press.

Borotis, S., & Poulymenakou, A. (2004). *E-Learning Readiness Components: Key Issues to Consider Before Adopting e-Learning Interventions.* http://www.eltrun.gr/ papers/eLReadiness_ELEARN2004.pdf

Corden, A., & Sainsbury, R. (2006). Exploring 'Quality': Research Participants' Perspectives on Verbatim Quotations. *International Journal of Social Research Methodology, 9*(2), 97-110.

Dhawan, S. (2020). Online learning: A panacea in the time of the COVID-19 crisis. *Journal of Educational Technology Systems*, *49*(1), 5-22.

Duraku, Z. H., & Hoxha, L. (2020). The impact of COVID-19 on education and on the well-being of teachers, parents, and students: Challenges related to remote (online) learning and opportunities for advancing the quality of education. https://www.researchgate.net/publication/341297812

Ertmer, P. A. (1999). Addressing first- and second-order barriers to change: Strategies for technology integration. *Educational Technology Research and Development*, *47*(4), 47–61.

Flamholtz, E. G., & Randle, Y. (2008). *Leading strategic change*. Cambridge University Press.

Friedman, J. (2020). *Tackle challenges of online classes due to COVID-19*. https://www.usnews.com/education/best-colleges/articles/how-to-overcome-challenges-of-online-classes-due-to-coronavirus

Gold, S. (2001), A constructivist approach to online training for online teachers. *Journal of Asynchronous Learning Networks, 5*(1), 35-57. http://dx.doi.org/10.24059/olj.v5i1.1886

Gurley, L. E. (2018). Educators' preparation to teach, perceived teaching presence, and perceived teaching presence behaviors in blended and online learning environments. *Online Learning*, *22*(2), 197-220.

Hepp, P., Fernandez, M., & Garcia, J. (2015). Teacher training: Technology helps to develop an Innovative and professional profile. *Universities and Knowledge Society Journal, 12*(2), 30–43.

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). *The difference between emergency remote teaching and online learning*. EDUCAUSE Review. https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

Honey, M., Culp, K. M. M., & Carrigg, F. (2000). Perspectives on technology and education research: Lessons from the past and present. *Journal of Educational Computing Research*, *23*(1), 5–14.

Hunte, C. (2020, June). *Online teaching not very effective – Education challenges for pupils, teachers during school closures*. Trinidad Express Newspaper. https://trinidadexpress.com/news/local/online-teaching-not-very-effective/article_e9f06932-a791-11ea-9d54-bf6f37982358.html

Ibrahim, A., Al-Kaabi, A., & El-Zaatari, W. (2013). Teacher resistance to educational change in the United Arab Emirates. *International Journal of Research Studies in Education*, *2*(3), 25–36.

International Development Bank (IDB). (2020). *COVID-19 Trinidad and Tobago report*. Social Digital. https://socialdigital.iadb.org/en/edu/covid-19/regional-response/6178

Irby, T. L. (2014). *Instructor competencies needed to develop instructional strategies for mobile learning in fields of agricultural education*. ProQuest Dissertations & Theses Global. https://www-proquest-com.newdc.oum.edu.my/dissertations-theses/instructor-competencies-needed-develop/docview/1649249284/se-2?accountid=48462

Jacob, S. A., & Furgerson, S. P. (2012). Writing Interview Protocols and Conducting Interviews: Tips for Students New to the Field of Qualitative Research. *Qualitative Report*, *17*, 1-10.

Johnson, A. M., Jacovina, M. E., Russell, D. E., & Soto, C. M. (2016). Challenges and solutions when using technologies in the classroom. In S. A. Crossley & D. S. McNamara (Eds.) *Adaptive educational technologies for literacy instruction* (pp. 13-29). Taylor & Francis.

Kalloo, R., Mitchell, B., & Kamalodeen, V. (2020) Responding to the COVID-19 pandemic in Trinidad and Tobago: Challenges and opportunities for teacher education. *Journal of Education for Teaching, 46(*4), 452-462.

Kaur, K., & Abas, Z. (2004). *An assessment of e-learning readiness at the Open University Malaysia.* Paper presented at the International Conference on Computers in Education (ICCE2004), Melbourne, Australia.

Kim, E. (2016). *Three reasons why SOME teachers are still not embracing technology in the classroom*. E-Sparks Learning.

Margolis, J., & Nagel, L. (2006). Education reform and the role of administrators in mediating teacher stress. *Teacher Education Quarterly*, *33*(4), 143–159.

Marshall, C., & Rossman, G. B. (2006). *Designing qualitative research (4th Ed.).* Sage Publications.

Mecham, E., Newell, E. J., Reina, L. J. & Stewart, C. (2021). Navigating pandemic schooling for novice teachers. *Educational Research: Theory and Practice, 32*(1), 90-96.

Milman, N. (2020). *This is emergency remote teaching, not just online teaching*. EducationWeek. https://www.edweek.org/leadership/opinion-this-is-emergency-remote-teaching-not-just-online-teaching/2020/03

Ministry of Education of Trinidad and Tobago. (2020). *The information and communication technology curriculum*. https://www.moe.gov.tt/online-learning-platform/June 2020

Ministry of Education of Trinidad and Tobago. (2021). *The information and communication technology curriculum*. https://www.moe.gov.tt/online-learning-platform/June 2020

Ncube, S., Dube, L., & Ngulube, P. (2014). E-Learning readiness among academic staff in the department of information science at the university of South Africa. *Mediterranean Journal of Social Sciences, 5*(16), 357-366. http://dx.doi.org/10.5901/mjss.2014.v5n16p357

OECD (2020). *Strengthening online learning when schools are closed: The role of families and teachers in supporting students during the COVID-19 crisis*. https://www.oecd.org/coronavirus/policy-responses/strengthening-online-learning-when-schools-are-closed-the-role-of-families-and-teachers-in-supporting-students-during-the-covid-19-crisis-c4ecba6c/

Ottenbreit-Leftwich, A. T., Glazewski, K. D., Newby, T. J., & Ertmer, P. A. (2010). Teacher value beliefs associated with using technology: Addressing professional and student needs. *Computers and Education, 55*(3), 1321-1335.

Palloff, R. M., & Pratt, K. (2000). *Making the transition: Helping teachers to teach online*. http://www.educause. edu/asp/doclib/abstract. asp? ID= EDU0006.html

Palloff, R. M., & Pratt, K. (2013). *Lessons from the virtual classroom: The realities of online teaching*. John Wiley & Sons.

Patton, M. Q. (2002). *Qualitative Evaluation and Research Methods (3rd Ed.)*. Sage Publications, Inc.

Picton, I. (2019). *Teachers' Use of Technology to Support Literacy*. National Literacy Trust. https://literacytrust.org.uk/research-services/research-reports

Ravitch, S. M., & Carl, N. M. (2016). *Qualitative research: Bridging the conceptual, theoretical, and methodological*. Sage Publications.

Roy, M. (2015). *Teacher preparation and professional development: Competencies and skill sets for the online classroom.* https://www-proquest-com.newdc.oum.edu.my/dissertations-theses/teacher-preparation-professional-development/docview/1748654706/se-2?accountid=48462

Schlichter, A. (2020). *The Impact of COVID-19 on Education: Insights from Education at a Glance*. OECD Publishing.

Simonson, M., Smaldino, S., & Zvacek, S. M. (Eds.). (2014). *Teaching and learning at a distance: Foundations of distance education*. IAP.

The United Nations Economic Commission for Latin America and the Caribbean. (2021). *Selected online learning experiences in the Caribbean during COVID-19* https://repositorio.cepal.org/bitstream/handle/11362/46907/1/LCCAR2021_03_en.pdf

United Nations. (2020, August) *Policy brief: education during COVID-19 and beyond*. Policy Brief: Education during COVID-19 and beyond. https://www.un.org/development/desa/dspd/wp content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf

United Nations Educational, Scientific and Cultural Organization (March 9, 2020) *Coronavirus COVID-19 and higher education: impact and recommendations*. https://www.iesalc.unesco.org/en/2020/03/09/coronavirus-covid-19-and-higher-education-impact-and-recommendations/

Warner, S. C., Malik, M. A., & Mohammed, J.H. (2021). ICT Professional Development workshops and classroom implementation challenges: Perceptions of secondary school teachers in Trinidad and Tobago. *International Journal of Innovation in Teaching and Learning (IJITL)*, *7*(1), 1-19. https://doi.org/10.35993/ijitl.v7i1.1507

Winter, E., Costello, A., O'Brien, M., & Hickey, G. (2021). Teachers' use of technology and the impact of Covid-19, *Irish Educational Studies*, 40(2), 235-246. https://doi.org/10.1080/03323315.2021.1916559