



# Transition to online education in Sri Lanka during COVID-19: A descriptive phenomenological study

## Research Paper

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### ABSTRACT

The novel coronavirus (COVID-19) that originated in China was declared a global pandemic by the World Health Organization in March 2020. To limit the spread of the disease, the Sri Lankan government announced the closure of all educational institutes. The school closure encouraged the use of home-based learning, and this transition was a critical period for both teachers and students. Because most Sri Lankan children reside in rural areas, our study examined how teachers in rural schools experienced the lockdown in relation to their teaching role during the pandemic. We used a descriptive phenomenological study design with purposive sampling until we achieved the saturation point. In-depth interviews were conducted via the Zoom platform, using a validated guideline that was piloted before the study and analyzed based on the thematic analysis approach. We identified five major themes: (1) adjustment to the online teaching/learning process; (2) experience of challenges; (3) experience of new opportunities; (4) impact of parental involvement; and (5) impact of teachers' and children's physical, psycho-social well-being. The study identified lack of access to technology and lack of proper guidance from the family as challenges during home-based learning. Parental involvement during teaching sessions decreased teachers' autonomy. Inadequate and inaccurate evaluation of the students disrupts the learning process. Teachers perceived that children's distance from classroom learning and their peer groups will affect the children's development.

### KEYWORDS

COVID-19; Children; Online Education; Rural Sri Lanka, Teachers

### BACKGROUND

In 2004 the coronavirus was found to cause a sometimes, fatal severe acute respiratory syndrome in humans (Kumar, 2020). The virus's new form—which was reported from the city of Wuhan in China in December 2019—was called novel coronavirus or 2019-nCoV (COVID-19) in January 2020. With the appearance of new confirmed cases of COVID-19 and new clusters worldwide, the World Health Organization declared it a global pandemic in March (World Health Organization, 2020). Because the disease's transmission came through direct contact with an infected person's respiratory droplets, governments around the world implemented lockdown policies, travel restrictions, and quarantine

programs to limit the spread of the disease (Brooks et al., 2020; Xiang et al., 2020).

The first confirmed case of COVID-19 in Sri Lanka was reported on 27 January 2020 (Jayatileke et al., 2020). As a preventive measure, the government there announced the closure of all educational institutes in both the public and private sectors (Epidemiology Unit, 2020). By 15 March 2020, 50 percent of social-distancing policies were implemented, including school closures, and prohibiting public gatherings (Erandi et al., 2020). By 20 March, that number had climbed to 75 percent. Island-wide curfews were imposed to reduce people's mobility (Hewage et al., 2020). By collaborating with



military forces and the health sector, the government created a successful quarantine policy. Some villages were sealed to prevent the spread of the disease. Schools and other educational institutions remained closed until further notice (Senasinghe et al., 2020).

By the end of the first COVID-19 wave, schools reopened on 6 July after over three months of lockdown. But with the second wave schools again closed on 5 October 2020 and primary sections of all schools (except in the Western Province) didn't reopen until 11 January 2021. When the third wave hit after Sinhala and Hindu New Year, the schools closed again from April 2021, causing vast educational inequities. During past pandemics the incidences of child labour, child abuse, and teen pregnancies increased when schools closed (Armitage & Nellums, 2020). The most vulnerable group is children who live with their grandparents when their parents work abroad.

Although the school closures aimed to reduce COVID-19 transmission, prolonged closures reduce parental and teachers' productivity and place a huge care burden for parents who work in the health sector (Bayham & Fenichel, 2020; Viner et al., 2020). Because school closure during the pandemic was less effective compared to during an influenza outbreak in the past (Viner et al., 2020), it is questionable whether this prolonged closure of schools had more advantages than disadvantages.

Along with new social-distancing guidelines, distance and online learning are in a new era in education (Adedoyin & Soykan, 2020). Online learning is a form of education that uses various electronic sources such as websites, satellite broadcasting, etc. but the terms are not clearly defined in the literature (Moore et al., 2011). When educational institutes closed, the use of online learning-maintained continuity in the education system.

As a group with greater responsibilities in the education system, schoolteachers were also victims in this crisis (Epidemiology unit, n.d.). In the transition from school-based learning/teaching to home-based learning/teaching, both teachers and students faced anxiety in adapting to their new roles ("Relative earnings: Gender, age and education gaps," 2021). Home confinement during the pandemic also created various health issues for people (Papaspanos, 2020). The workload and burden for front-line workers

increased with home confinement—especially for women (McLaren et al., 2020). Evidence documents how the pandemic increased the risk of mental health problems such as stress, anxiety, depression, insomnia, and post-traumatic stress symptoms among people (Torales et al., 2020).

Teachers experienced a huge challenge with getting accustomed to new learning methods and acquiring skills and resources for online learning (Fauzi & Sastra Khusuma, 2020). Online learning affects interactions between teachers and students which will affect the quality of education (Dhawan, 2020). Some studies have addressed the advantages of online learning such as the ability to save time and energy, but it has significant limitations for underprivileged communities (Mukhtar et al., 2020). Developing countries experience this educational inequity because they lack equal access to technology and are unable to provide the desired learning materials (Adnan, 2020).

The Sri Lankan population of children aged 5 to 17 years is estimated to be 4.6 million, and the majority reside in rural areas. Although emergency remote learning was implemented in the country's urban areas during the pandemic, we doubted that most rural students and teachers had access to the new technology and online educational platforms during home confinement. Hardly any study dealt with this issue for the country's rural population (Gangahagedara et al., 2021). We therefore aimed to describe the experiences of primary school teachers in rural areas in Sri Lanka, in particular the educational activities conducted online during home confinement in the COVID-19 pandemic. This study was granted ethical approval from the Faculty of Allied Health Sciences, University of Peradeniya.

## METHODS

### *Study Design*

We used Colaizzi's descriptive phenomenological study design (Morrow et al., 2015). Descriptive phenomenology focuses on the subjective and unique experience of an individual or a group and it is especially valuable in areas where there is little existing research. The process mainly attempts to discover a person's lived experience (Willis et al., 2016). Giorgi (1985) is considered the pioneer in



bringing phenomenological thinking into psychology. Giorgi's methods were extended by Colaizzi (1978). Although he is little-known in psychology his methods are widely used in other disciplines such as the health sciences (Northall et al., 2020).

Colaizzi proposed a distinctive seven-step process to perform rigorous analysis of qualitative data, with each step staying close to the data ("Application of Colaizzi's method of data analysis in phenomenological research," 2021). The result is a concise description of the phenomenon under study, validated by the participants who created it. It depends on the experiences shared by information-rich participants. These data may come from face-to-face interviews but they can also be obtained from written narratives, blogs, research diaries, and online interviews.

### **Participants**

Study participants were teachers who worked in the rural community during the lockdown period of the pandemic. Teachers assigned to teach children who were eight to ten years old (Grades 4 and 5) were included.

### **Sample Size**

Because data saturation is a widely accepted principle for determining the sample size in qualitative research, we determined our sample size based on data saturation. The saturation point was achieved at the 16th participant.

### **Trustworthiness — Rigour and reflexivity**

We followed the four-dimensional criteria (credibility, transferability, dependability, and conformability) to maintain the trustworthiness of the study results (Forero et al., 2018). To achieve credibility, after each interview we sent a summary of the findings to each participant and asked them to comment. For persistent observation of data, both authors reread the contents of the interviews several times before identifying patterns between them. Transferability was assured by providing adequate contextual information (setting, sample, sample size, sample strategy, socio-demographics, inclusion and exclusion criteria, and the interview procedure). Dependability was achieved by using accepted

standards such as Colaizzi's (1978) descriptive phenomenological study design and the thematic analysis method. To assure conformability, team members achieved a consensus for the final themes. Both researchers identified themes individually and continuously discussed new themes when they arose.

### **Data Collection**

Both investigators have experience with qualitative data collection methods, and they conducted in-depth interviews via the Zoom video-conferencing platform. We selected three schools in a very rural area of Northwestern Province, Sri Lanka. We sent information about the study to the schools' principals by mail. Each principal explained to the teachers the nature of the study, how their participation was voluntary, safeguards for privacy and confidentiality, and their right to withdraw at any time. The principals also gave our contact details to the teachers. Voluntary participants who contacted us were recruited for the study. The principals were not aware of which teachers we interviewed. All details of the study and consent forms were sent to the participants via e-mail. Completed consent forms were also returned via e-mail. Once participants selected the date and time for interviews, we scheduled a Zoom meeting using an affordable data package.

Only a 40-to-60-minute meeting was conducted for each participant. If that time did not allow them to complete all the questions, we scheduled a second meeting. No more than two meetings were held with a single participant. A single investigator conducted each interview, which began with building a professional and friendly rapport. The teacher could also select a preferred setting for the interview — either home or school.

We used a semi-structured interview guide. It focused on educational activities among Grade 4 and 5 students and their teachers in a rural community during the pandemic's home-confinement period. The main questions were:

- *What difficulties are you are facing when continuing educational activities for your students at this time?*



- *What online learning methods are you using and how?*
- *What challenges are you facing when using these methods?*
- *How about the support given by parents, the school, and other authorities?*
- *How about your satisfaction with the educational activities?*
- *What kind of feedback have you received from your students and parents?*
- *How has this transition affected your normal daily routine?*
- *In your view, how does this transition affect the students' development?*
- *Do you have any suggestions to improve the ongoing online learning activities in rural schools?*

The researchers modified the interview guide during the interview period because we identified a need to acquire more specific data concerning the Sri Lankan context. Each interview was digitally recorded with the participants' prior permission. The interviews were conducted during the period of school closure from April to July 2021.

### **Data Analysis**

Digital files were transcribed verbatim, and all personal identifiers were removed from the transcripts. Data analysis began after the transcription of the first interview. We used an inductive approach to characterize themes that emerged through the data. More specifically, we employed the Colaizzi seven-step method:

1. *Familiarization.* We familiarized ourselves with the data by reading through the transcript several times.
2. *Identifying significant statements (codes).* We read and identified codes within the transcribed interviews independently. All statements/codes in the accounts that were of direct relevance to the phenomenon under investigation were identified.

3. *Formulating meanings.* We identified relevant meanings after a careful consideration of the significant statements. By identifying patterns within the codes, we also identified descriptive subthemes.

4. *Clustering themes.* We clustered the identified meanings into themes that were common across all accounts.

5. *Developing an exhaustive description.* We wrote full and inclusive descriptions of the phenomena, incorporating all the themes produced in step 4.

6. *Producing the fundamental structure.* We condensed the exhaustive description down to a short, dense statement that captures just those aspects deemed to be essential to the structure of the phenomenon and major themes were identified. At the final stage both researchers clarified any disagreement in their independent analyses.

7. *Seeking verification of the fundamental structure.* We returned the fundamental structure statement to all participants by phone to ask whether it captured their experience. Sometimes a researcher went back to modify earlier steps in the analysis informed by this feedback (Morrow, Rodriguez, & King 2014).

## **RESULTS**

Our sample consisted of 6.25 percent men (1) and 93.75 percent women (15). Just over 12 percent of the teachers (12.5%) had completed postgraduate education, 25 percent had bachelor's degrees, and 62.5 percent had diploma-level education. Most (93.75%) have more than five years of experience in primary school education. All the participants were Sinhala, Buddhist, and married with children.

Five major themes were identified during our analysis of data: adjusting to the home-based teaching and learning process, experiencing challenges, emergent new opportunities, impact of parental involvement, and impact on teachers' and students' physical and psychosocial well-being. What follows are summaries of the themes and subthemes we identified, in part represented by participants' own words.

### ***Adjusting to the home-based teaching and learning process***

#### **Maintaining minimum physical contact**



Most of the participants used alternative teaching methods to avoid physical contact with students and parents. Before starting online teaching, they distributed printouts of reading material, worksheets, and assignments to the students through one parent, keeping resources at a shop near the school and posting the assignments. In rural areas of Sri Lanka access to the Internet is limited for most students, so teachers used alternative methods other than online teaching in the initial period of school closure.

*P8. At first, we left an assignment file in a store near the school and asked the children to pick it up. Later it came to a level where it could not even be kept because of the increase of the Covid situation.*

*P3. I post a set of papers via mail to one mom, and they share it among them.*

*P6. I wrote assignments relevant to a period of one month in a workbook and went to one parent and then they said they would share it. At first, I was told to come to school and take assignments, but it was difficult for them because their homes are very far from school.*

### **Transition to new technology**

Most teachers had used WhatsApp and Zoom. Sometimes they had to contact children over the phone because of a lack of quality Internet connection where the children resided.

*P8. At first, they didn't even have a phone. Then they got used to it. Now a significant number of children connect to classes through Zoom technology.*

*P12. Children are engaged in educational activities on Zoom through the online system. For the children who cannot be connected by zoom, assignment and question papers are sent through WhatsApp.*

*P7. Sometimes I teach lessons to children who can't connect through WhatsApp through phone calls. Somehow in the evening I make sure everyone gets the lesson I did on that particular day.*

*P4. First the assignments were sent through WhatsApp and then the voice recordings were sent and then the kids gradually got used to online. Now*

*the online education system is being run and video clips are also being sent.*

### **Experiencing challenges**

#### **Lack of digital competencies**

One of the major challenges the teachers experienced was their lack of competency in using new technology for online teaching. Most of the participants did not have any prior training on the use of the software for virtual teaching. They taught themselves this software during this pandemic period.

*P4. Teachers have no prior knowledge or training of this technology. We were the ones who learned these things with difficulty, knowing it was a necessity in these days. It took a little bit of extra time as our generation is not much familiar with this new technology.*

*P3. At first, I didn't even know that there is software like Zoom where I can do lessons online for many students at once.*

Parents, guardians, and students also did not possess adequate knowledge of or competency with the technology for online learning. This was another challenge for the teachers when continuing their lessons. Sometimes the students owned a digital device but neither the student nor the parents had the knowledge to download the relevant software for online education, to activate Internet packages, or to download assignments. Some students did not have access to any digital device.

*P5. Although most parents have a smartphone, they do not have the knowledge to handle WhatsApp and Zoom.*

*P2. We made the students aware about Zoom online classes through a WhatsApp group and then there were many problems for them when downloading the application or activating data packages. They are primary students and not as independent as older students, so they are helpless when their parents are not familiar with this technology.*

*P6. There were many children who do not even have a phone to talk at home, so it makes no sense for*



*them about these online classes. Even the parents don't understand.*

### **Less access to the internet**

Most of the teachers and students faced problems with Internet connection.

*P6. I work in a very rural division. There is no communication network at all. Some children climb trees to even get a phone call so they can't take classes online.*

Although they possess the digital device and the relevant software, people's Internet signal quality was not enough to conduct or participate in an online class without any disturbance. Sometimes students were required to travel a significant distance for Internet signals.

*P9. Some students join the Zoom class but disconnect quickly. Then they give me a phone call saying that they lack the Internet signals, or their data package has expired ... If I do a lesson for two hours, after like half an hour most of the students have disconnected from the online class.*

*P12. I also have the problem with poor network coverage. I also bought a new Internet router, but the problem did not resolve. One teacher explained that some students live in villages where there is a wild elephant threat so they cannot go outside in the evening.*

*P5. There is no Internet coverage in that area so they must go to a far place but due to travel restrictions, they can't go very far. This village also has a wild elephant threat. So they give telephone calls and tell me that if they have to join the online class, they need to go to the village temple where there is Internet coverage. But in the evening, they can't be outside because of the wild elephant problem.*

### **Lack of proper guidance from the family**

Students' Internet misuse resulting from not having proper guidance from the family was another challenge the teachers experienced while engaging in home-based educational activities. Some students pretended that they were in class while they played

video games. The teachers felt there was a lack of proper guidance from the parents or guardian.

*P8. There is one student in my class—the mother has left the family and the father is an army soldier and most often not at home. The child therefore lives with the grandmother who has no knowledge about digital devices. This child always connects to the Zoom class but turns off his camera. Later the grandmother complained that he is playing video games faking that he is in class.*

One teacher explained how, in such instances, the teacher must act as a mediator to solve the issues.

*P11. There were so many complaints from parents about children watching YouTube videos unnecessarily when they got the phone for online classes. Then I advised the children by means of the school principal.*

### **Student evaluation process**

Most of the teachers complained about lack of proper student evaluation methods during home-based learning. Although teachers gave assignments and test papers, sometimes they were unsure whether the student did the work themselves or with the help of siblings.

*P8. I am not sure whether some assignments are solely done by the student. But I can't blame them. I caught some elder siblings doing the math exercises of my students. Sometimes even essays were written by the parents. I felt that because I have known these students for years.*

One teacher had a concern that these changes in student-teacher interaction will have a negative impact on the students' education.

*P4. We have to adjust the handwriting of the primary student. But during online classes it is very difficult. In school we take the student close and adjust their handwriting. This is very bad for children's future.*

### **Emergent Opportunities**

#### **New technological skills**



Most of the teachers have gained new skills involving technology while adjusting to online classes. Even the students have gained this knowledge. Teachers perceived this as a positive impact of home-based learning.

*P14. It was a very good chance for us to learn about this new technology. Even the students are now very keen on using the digital devices. Students send me “good morning” messages. They download various educational videos and upload them to the WhatsApp group. It’s really a good progress.*

*P15. Two students got together and made a video of a dance they did and then uploaded it—they chose a beautiful location in the village for the background. Even I couldn’t imagine how these kids have improved this much.*

Teachers explained that this has also been a good opportunity for parents to be familiar with this new technology.

*P4. Now the children and the parents know when to mute the mic and when to unmute and talk. I see a very good improvement.*

### **Using a variety of teaching aids**

Teachers identified the opportunity to use audio-visual teaching aids during online classes. They didn’t have the chance to use this technology when they taught in person at school due to a lack of resources. Because of this transition teachers were able to show real-time pictures and practical videos using web-based teaching.

*P8. Our school does not have a computer. Using technology for lessons was a dream. But now I can show them videos relevant to the lesson and I think this has brought our students an opportunity to see the world beyond their frame.*

*P16. I was able to show videos of science experiments using the Internet. But in school we did not have equipment to do those experiments— we just taught them.*

### **Impact of Parental involvement**

#### **Positive impact of parental involvement**

Teachers perceived that parent supporting students in the online classes was a positive aspect. Parents could assist their child with technical difficulties encountered during the class and help to clarify unclear points of the lesson. Sometimes siblings were also involved which made it easier for the teacher to continue the lesson with minimal distractions.

*P4. I see a good progress in students because now parents stay close to the child during the lesson. Parents also listen to me so when doing assignments and papers they can help their child.*

*P9. At first after a lesson many children phoned me to clarify certain points in the lesson but now as mothers also join the class they are explaining to the child.*

#### **Negative impact of parental involvement**

Some teachers see parental involvement in the online class as a burden. They mentioned that parental presence can reduce teachers’ autonomy to point out a child’s mistakes. When the parents stay near the child during the class it also reduces the child’s independence to engage in critical thinking and affects the teacher’s process of evaluating the child.

*P13. I feel really distracted when parents join the class. I can see they secretly tell answers to the child, and it affects my evaluation of the child.*

*P7. Sometimes when I point something out the students’ parents turn off the camera. One girl was playing with a doll during the online class and when I advised her not to do it, I think her mother turned off both the camera and the mic.*

#### **Impact on physical, psycho-social well-being**

#### **Positive impact on physical, psycho-social well being**

Most of the teachers mentioned that they experienced less fatigue and increased rest time during the period of home-based teaching. They were concerned about having to travel to school during the pandemic and feared getting infected but now it has been resolved. Because of this home confinement the



teachers have enhanced family bonds and relationships with their own family and spend more time with their own children.

*P4. It's so much easier than travelling to school and we have no fear of travelling by bus during the pandemic. At first, I was very afraid that I might catch the virus while travelling.*

*P12. My own children also stay at home these days, so I can spend time with them and help with their studies while working from home.*

*P13. I decided that it is better we teach from home until we get fully vaccinated. Online learning is a good solution.*

### **Negative impact on physical, psycho-social well being**

Teachers experienced physical difficulties with increased screen time. They mentioned feeling stressed, depressed, and anxious about having to spend more time for schoolwork than on normal routine days.

Students also complained to the teachers about feeling bored, lonely, and stressed during home confinement. Some students were forced by their parents to do a higher workload while at home.

*P2. This technology is new to our generation. I feel really stressed and depressed at the end of the day because I must look at the screen of the phone for a longer time. I even got a severe headache. Now I am using glasses.*

*P8. When we go to school it's only from 7:30 a.m. to 1:30 p.m. or sometimes 2:00 p.m. But now I feel like I am spending the whole day for schoolwork. I have to start the online class at 6:30 a.m. because at that time the Internet speed is quite high and then the class ends at 8:30 a.m. Then I have to correct all the papers that students have sent me through WhatsApp and send a recording of their mistakes back to them. I am really exhausted at the end of the day.*

*P4. My students often ask when the school is reopening. Now they are fed up with online classes. One student complained that her mother is forcing*

*her to engage in another five extra classes in the afternoon and in the evening, so I had to advise the mother.*

*P12. One student sent me a very emotional song that she wrote. I feel that these children are really suffering, and they are eagerly waiting to meet their friends and teachers again.*

### **DISCUSSION**

The results of the study highlight teachers' negative and positive experiences in virtual teaching during the pandemic lock-down. Home-based teaching is not a familiar concept for primary school children or the primary school teachers. Because of limited electricity and telecommunication facilities in rural Sri Lanka, implementing online classes is a big challenge. Sri Lanka Telecom (SLT) is the largest Internet service provider in the country. A typical data package costs USD 11 per month for 150 hours. The actual per minute cost of dialup Internet access is normally high (Gunawardana, 2005). Low socioeconomic status, parents' inadequate awareness about the advantages of using the Internet, and a lack of computer and English language skills have been identified as barriers for Internet adoption in rural communities (Madhubhashini, 2019). According to 2020 statistics, 81.29 percent of the total population of Sri Lanka resides in rural areas. The results of our study suggest that most of the students and teachers of rural areas are facing issues with Internet quality and a lack of technological skills and devices when transitioning to home-based teaching and learning.

In a previous study teachers identified WhatsApp as an affordable application for teaching and learning. They perceived students were motivated by and interacted more in online classes. Parents and guardians were identified as potential resources to prevent student distractions (Nsabayezu et al., 2020). We found similar results in our study, which also highlighted the negative impact of parental involvement. This needs to be examined further.

A reliable Internet connection is necessary to carry out quality online teaching sessions (Kaiser & Strawn, 2021). This was a major concern for our participants. When a teacher cannot give immediate feedback to the students it reduces the teaching session's effectiveness. It also presents a major educational



inequity for students. Therefore, future stakeholders should be concerned about these educational inequities when planning guidelines for online education for primary school children.

Teachers and students are experiencing socio-emotional and physical health problems because of the transition away from the classroom. Previous studies conducted during the pandemic have shown that home confinement has brought depressive symptoms, anxiety, sleep deprivation, and health risk behaviours among different populations around the globe (Canello et al., 2020; López-Bueno et al., 2020; Majumdar et al., 2020). Our study had similar results though further research is needed to examine the issues specific to rural Sri Lanka.

Home-based learning has also brought new opportunities for teachers to upgrade their teaching skills and incorporate various new models and methods into their practice. This transition will open a new era of primary education in Sri Lanka. However, because of unequal access and distribution of resources, rural schoolteachers and students will continue to face greater challenges.

### CONCLUSION AND FUTURE DIRECTIONS

Online learning has emerged as a substitute for conventional schooling methods to provide essential learning to children at home. To achieve academic goals across the population, schools should proceed cautiously when incorporating online methods of teaching and learning if they don't want to produce educational inequities among children. For example, how will parents with different educational backgrounds follow teachers' instructions? How will curriculum delivery be affected by poor Internet facilities or other inadequate resources for rural communities? These issues must be addressed.

Opportunities for enhancing teachers' lifelong professional development should also be at the forefront of this transformative process. Researchers have an opportunity to evaluate the effectiveness of different teaching approaches and develop novel strategies specific to unprivileged communities. Input from families can be helpful to create a learning environment that benefits everyone. This study was confined to one rural area of Sri Lanka, and it discusses the teachers' perceptions only. Future

studies are needed among a wider population to discuss feelings and experiences of children and their parents when engaging in online education and home-based learning during a pandemic.

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