Category: Research Article

Impact of COVID–19 on School Education: Lesson Learned from Sri Lanka

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ARTICLE DETAILS	ABSTRACT

The COVID-19 pandemic has significantly disrupted every aspect of human life, including education. The alarming virus spread caused havoc in the educational system, forcing schools to shut down. Sri Lanka's school education system suddenly shifted from classroom-based free education to online-based distance learning education in response to the COVID-19 pandemic lockdown. This paper aims to review the impact of the COVID-19 pandemic on the school education system in Sri Lanka and provide recommendations to minimize the risk in the future. The evidence synthesized in this document is based on a rapid review of the available literature on the impact of the Covid-19 pandemic on education. The findings show that many educators and students relied on technology to ensure continued learning online during the Coronavirus pandemic crisis. During this period, school students face severe challenges due to the postponement of exams, pedagogical issues, distractions, poor digital skills, lack of resources, the complex environment at home, failure to substitute classroom teaching, etc. However, the crisis has stimulated the paving of the way for the introduction of digital learning. Recommendations from the literature include providing further funding for professional development and equipment, prioritizing equity, designing collaborative activities, and using synchronous and asynchronous technology, which will help carry out educational activities without interruption during future calamities.

1. Introduction

The COVID-19 pandemic has driven the fastest changes to school education across the globe, necessitated by social distancing measures preventing face-to-face teaching [1]. This has led to an almost immediate switch to distance learning by schools. According to [2] monitoring, the first wave of the COVID-19 pandemic has resulted in the total closure of schools in about 192 countries worldwide, with 91.4% of enrolled learners temporarily forced out of school. Over 590 million learners in Asia have been affected by the COVID-19 pandemic.

A disaster pandemic is "an epidemic occurring worldwide or over an extensive area, crossing international boundaries and usually affecting a large number of people" [3]. The 2019 Coronavirus Disease (COVID-19) is an infectious disease caused by a newly discovered Coronavirus [4]. The outbreak was first identified in December 2019 in Wuhan, China. The COVID-19 pandemic in Sri Lanka is part of the worldwide pandemic.

COVID-19 has made every sector of human life immediately feel its impact. In that respect, the education sector of Sri Lanka is also affected. The education system in Sri Lanka is based on traditional and modern classroom education and requires the pupils to attend school classes. The country's general education situation changed in 2020 when the first COVID-19 infection was detected in Sri Lanka. This global pandemic has caused large-scale disruption to the continuation of structured in-school education in Sri Lanka for approximately 4.2 million students and 235,000 teachers [5]. In response to the first wave of the COVID-19 pandemic, all educational institutions in Sri Lanka, including schools and universities, were closed on March 13 [6]. Sri Lanka and the rest of the world rapidly adapted to the "new normal" of distance learning during school closures without prior training or preparation [5].

1.2 The Purpose of the Article

The study's main objective is to examine the impact of COVID-19 on school education in Sri Lanka. Consequently, the study provides recommendations to overcome future challenges based on available evidence.

2. Methodology

The evidence synthesized in this document is based on a rapid review of the available literature on the impact of the Covid-19 pandemic on education. With these objectives, I conducted a rapid review by searching PubMed, Embase, and Google Scholar for any study published between 2020 and 2022. The search was done using keywords, namely "school," "learning," "Covid-19," and "impact."

3. Continuity of School Education during COVID-19 in Sri Lanka

Education Forum Sri Lanka (EFSL) initiates conversations on "Distance Education in the time of Calamities and Beyond." The sudden closure of schools to tackle the spread of COVID-19 saw the education system responding swiftly with a slew of interim measures to seek to continue education through online and other methods of distance education [7]. Distance learning is an educational experience where instructors and learners are separated in time and space [8]. It generally involves the least interactivity. Distance learning is mainly focused on the ability of the self-directed learner to absorb and derive knowledge from the materials [9]. Online learning is defined as "learning experiences in synchronous [1] or asynchronous [2] environments using different devices (e.g., mobile phones, laptops, etc.) with internet access [10]. It may include video-conferencing (synchronous) or message boards (asynchronous), online polling or quizzes (both synchronous and asynchronous), augmented reality tools, or simulations [9].

In response to the first wave of the COVID-19 pandemic in Sri Lanka, classes are primarily conducted via online and television broadcasts initiated by the Ministry of Education in collaboration with the National Institute of Education [11].

Consequently, two educational programs, Gurugedera (Sinhala) and Gurukulam (Tamil), were initiated with the partnership of Rupavahini, the state-owned television network. Additionally, Channel Eye and Nethra TV initiated the broadcast of educational content during the school closure. E-chakalaka, the national e-learning portal of the Ministry of Education, offers learning materials to facilitate the learning of grade one to twelve students in the safety of their homes [2]. In addition, public education institutions have resumed working through online learning systems with apps such as Zoom, Microsoft Teams, and Google Classroom [12]. Teachers also use mobile applications like WhatsApp and Viber to communicate with their students constantly.

4. Impact of COVID-19 on School Education in Sri Lanka

4.1. Negative impact

4.1.1 Postponement of exam

Sri Lanka has decided to postpone some of their high-stakes exams at a later stage, depending on the evolution of COVID-19. The government ordered to close schools for five weeks from 13 March to 20 April, which also marks the end of the first term, and the academic school exams scheduled for the first term were scrapped. The impact of this pandemic is strongly felt by G.C.E A/L candidates whose examinations are usually written in August of each year. Their preparation for examinations has been adversely affected. Similarly, Grade 11 students who write their final examinations in December have also been negatively affected.

Two key school-level 2021 examinations (Grade 5 scholarship and the G.C.E Advanced Level exams) in Sri Lanka that had been rescheduled in 2021 have been postponed to 2022. Passing A/Ls is a general requirement to enter a Sri Lankan state university [13]. Extended school closures cancel the examinations and disturb the curricula and future assessments.

4.1.2 Inequal education due to lack of resources, connectivity, and infrastructure

The lockdown in the COVID-19 catastrophe has interrupted conventional learning in the education system in Sri Lanka. While the government has concerted efforts to keep learning continuity, students must depend on their resources to continue learning remotely. Many poor students cannot get their education correctly due to the absence of smartphone and laptop facilities in their homes during this pandemic [14]. Even though free education assures equal rights to all students, the current crisis seems to cause inequalities in the

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[1] The synchronous learning environment is structured in the sense that students attend live lectures, there are real-time interactions between educators and learners, and there is a possibility of instant feedback.

[2] The asynchronous learning environments are not properly structured. In such a learning environment, learning content is not available in the form of live lectures or classes; it is available at different learning systems and forums. Instant feedback and immediate response are not possible under such an environment.

education system [15]. The affordability and accessibility for all learners of varied economic backgrounds are challenging [16].

The COVID-19 crisis hits when most education systems are not ready for digital learning opportunities. According to LIRNEasia, only about 40% of students aged 5-18 can access the Internet. Out of this group, about 37% use this via mobile phones, and only 4% or less use wireless internet. Only about 20% of students in this age group will have access to laptops/desktops, and less than 3% have access to tabs [17]. Based on a non-representative survey with teachers in Sri Lanka report that while only 4% of students could be reached using online real-time classes via Zoom/Teams, 41% could be taught via messaging platforms such as WhatsApp/Viber to send notes and assignments such as pictures or PDF files [18]. This means that less than half of all households in Sri Lanka only can benefit from online learning opportunities.

[7] also noted that for the children in plantation communities, access to e-learning during the COVID-19 school closures has not been viable. Parents have had to either mortgage or acquire small loans to buy mobile phones and then top these up with data packages to support their children's internet connection. Even then, uninterrupted electricity and reliable internet connectivity are influencing online learning. Reports have arisen of children staying on the roadside and climbing onto heights such as trees and water tanks to participate in online classes [19]; in primary and secondary classes, multiple siblings have to share one device to access [12]. The inequality gap between students in different financial situations, which has been present in education systems for a long time, is being exacerbated by the COVID-19 pandemic.

4.1.3 Varying digital skill

In the Sri Lankan context, online applications were at a primitive stage. The experience of fully online education for teachers and students was minimal compared to developed countries [6]. The survey of [20] results show that 30.8% of Sri Lankans were computer literate[3] and more than two out of five persons (aged 5-69) were digitally literate[4]. Children and parents lack the knowledge to understand and navigate online tools safely and

securely [6]. Online learning has created a digital split among students.

Teachers have varying digital skills. Many teachers had little use and knowledge of online resources before the outbreak. Many teachers had no previous experience in online teaching. Teachers have been forced into teaching in a system that is not prepared. Further, the urban-rural disparity, different levels of knowledge about information technology acquired by teachers, and the ability to learn information technology are impacting the effectiveness of online education.

4.1.4 Pedagogical Issues

Education happens when a child engages with the learning material critically, creatively, and collaboratively and learns to communicate what one has learned [18]. One of the limitations of distance learning is the lack of personal interaction between teacher and student. Students face difficulties in understanding the subjects and homework. Notes sent over WhatsApp are not educational. Parents cannot substitute for teachers. Even parents who are teachers find it difficult to teach their children at home.

[18] revealed that T.V. Programs should be developed with a methodology that can be followed up with the child. It is difficult for the child to continue the lesson because he/she cannot return to what he/she does not understand. Children are helpless because they have no one to explain the difficult points and to listen to them. The pupils who needed constant supervision in the class gradually went backward in the distance [21].

4.1.5 Low motivation and poor learning environment at home

How many of our students have a learning environment within their homes that is free of disturbance from other members of their families? Studying at home is not easy, especially for children with low motivation. In a poor learning environment, students face isolation, anxiety about a deadly virus, uncertainty about the future, and less effectiveness of teacher-student interaction, which are significant negative impacts of distance learning [22]. Students are prone to many health problems like visual impairment, laziness, and spinal pain as they engage in online learning mostly [14].

In Sri Lanka, 69 percent of parents of primary school children said their children were learning less or much less [5]. Students' writing and reading skills and habits are also declining these days. The teacher from North-Western Province revealed that even children with a T.V. at home don't get to watch the programs they desire. Their parents and siblings

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[3] A person (aged 5-69) is considered as a computer literate person if he/she could use computer on his/her own. For example, even if a 5 years old child can play a computer game, then he/she is considered as a computer literate person.
[4] A person (aged 5-69) is considered as a digital literate person if he/she could use computer, lap top, tablet or smartphone on his/her own.

change the channels to watch what they want. Therefore, the child who has homework has a constant battle to watch these programs [23].

4.2. Positive impact

Risk is a driving force for social change, but it gives power and advantage to those who can avert and manage the risks [24].

COVID-19 has become a catalyst for educational institutions to search for innovative solutions relatively quickly [25]. From past and current experiences, it is a fact that Sri Lanka makes impressive efforts to switch from face-to-face to remote learning approaches using digital means. It allows students to learn from home and stay home as much as possible, maintain physical distancing, and save themselves [26].

In the COVID-19 prevention action, two public television channels were dedicated to airing educational programs - Channel Eye and Nethra TV – in Tamil and Sinhala for grades 11,13 and 05. Understanding the specific educational needs of children in early primary, the Ministry of Education collaborated with UNICEF to distribute study packs for grades 1 and 2 [6]. There was an unimaginable collaboration among all the stakeholders in the field of education, including administration, teachers, students, parents, and companies.

Even though there have been overwhelming challenges, online learning is the best solution to face the challenges of COVID-19. Many teachers volunteer to teach students online for free [14]. There is a new opportunity where collaborative teaching and learning can take on new forms. Teachers can use audio/visual content like animation, pictures, video, or different compelling and student-friendly learning content from the Internet with proper examples and explanations [18]. Most studies have revealed that online education is interactive and innovative, enhancing traditional teaching and homeschooling.

Many education-related companies are offering their tools and solutions for free to help support teachers and students. It provides the opportunity to practice online learning and teaching. Private internet service providers, like S.T.L., Lanka Bell, Hutch, Mobiltel, Dialog, and others, provide special e-learning student data packages, allowing children to study at home [5].

With online learning, students can gain access to knowledge and even learn a technical skill through a few clicks on their phones, tablets, and computers [27]. For those with access to the right technology, there is evidence that learning online can be more effective in many ways. Some research shows that, on average, students retain 25-60% more material when learning online compared to only 8-10% in a classroom. E-learning requires 40-60% less time to learn than in a traditional classroom setting because students can learn at their own pace, going back and re-reading, skipping, or accelerating through concepts as they choose [28]. Some other researchers believe a new hybrid education model will emerge with significant benefits. Furthermore, it has given the experience to face the future calamity.

5. Conclusion and Recommendations

This article has identified the major impact of COVID-19 on education. The government of Sri Lanka took several steps to continue the educational activities within a short period. The distance learning model has attracted new experiences that require the transfer of activity planning from the traditional format to the online format. Online teaching-learning is creative, innovative, and interactive. However, the country's varied economic background, literacy level, and digital skills harm it. These emergency response measures have worsened existing education inequities. Moreover, this pandemic exposed our disaster unpreparedness, education-wise. There is potential for a future study to highlight the threats of online learning to create awareness among parents and teachers.

Therefore, it is critical to come up with short-term fixes and long-term solutions to school children's distance and online education in times of calamities. This study recommends the following suggestions for school education to prepare it for future crises.

A middle-income country Sri Lanka, which is likely to be even harder hit by the pandemic on the education sector, needs to implement learning recovery programs, protect educational budgets, and prepare for future shocks by "building back better."
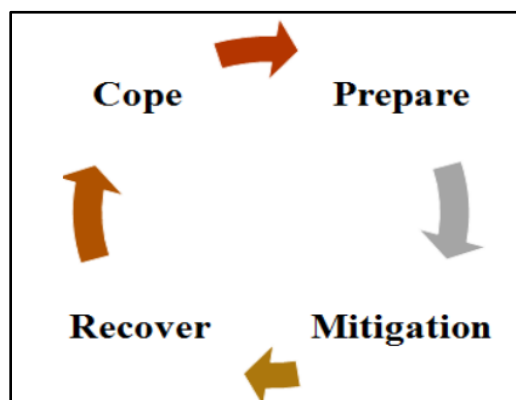

Figure 1: Proposed cyclical approach for education that responds to COVID-19 [29]

[29] introduced a cyclical approach that assists in adapting and managing the global COVID-19 pandemic and any pandemic that may arise in the future. Preparation is the first phase of this cycle; it focuses on preparation for COVID-19 by preventing possible damage to the field of education. The mitigation phase focuses on minimizing the potential impact of COVID-19 on the education sector. The recovery phase mainly aims to return education to normal while coping is expected to withstand the effects of COVID-19 on education.

Making more commonly available technologies central to education delivery could reduce inequalities created in the longer term. Television and radio are widely available in Sri Lanka. T.V. is available to over 90 percent of households. If the content is less and students are guided to be self-directed, some of these non-Internet solutions can be used for distance education to have a better effect. However, they tend to be better suited for lower grades. Generally, T.V. is the most feasible way of reaching less-privileged students in Sri Lanka [30].

During post-COVID-19, even after starting physical education, online platforms should run parallelly to face similar situations in the future. [6] revealed that the government should allocate the necessary capital and recurrent expenditure to provide digital appliances to marginalized students and teachers. Government should improve internet infrastructure and access to the Internet.

School teachers should also get proper training to handle online classes without interruption to face similar situations in the future [29]. All classrooms should provide an internet facility, large digital screens, and online videos with demonstrations. If any student is absent, even they should be able to attend the lesson in real-time from their home. The facilities we have gained through the pandemic situation should be continued. In the future, Sri Lanka must build its capacity to provide a balanced education by combining traditional and online learning (Hybrid learning) methodologies.

Most parents should have proper training to support their children in homeschooling during the pandemic [31]. There should be a proper communication system for parents, teachers, and students to deliver the most important information regarding continuing their education [29].

This is the epitome period for policymakers to look at the world with a new perspective [32]. Policymakers must take urgent action to mitigate the current COVID-19 education crisis and develop a robust system for education delivery in the new normal to improve program design and pedagogy for remote and hybrid teaching. School education must revisit curriculums, pedagogy, and assessments for online and hybrid learning.

References

1. Longhurst J, Stone DM, Dulohery K, Scully D, Campbell T, et al. Strength, Weakness, Opportunity, Threat (SWOT) Analysis of the Adaptations to Anatomical Education in the United Kingdom and the Republic of Ireland in Response to the Covid-19 Pandemic. Anatomical Sciences Education 2020; 13: 298–308.

2. UNESCO. COVID-19. Education: From disruption to recovery. [Internet] https://en.unesco.org/covid19/educationrespons e (Accessed on: 10/07/2020).

3. Last J.M. (Ed.). A dictionary of epidemiology, 4th edition. New York: Oxford University Press; 2001.

4. WHO Coronavirus Disease (COVID-19) Dashboard. 2020. Available at: https://covid19.who.int/ (Accessed on: 03/06/2020).

5. Sri Lanka Case Study, Situation Analysis on the Effects of and Responses to COVID-19 on the Education Sector in Asia. United Nations Children's Fund (UNICEF) and United Nations Educational, Scientific and Cultural Organization (UNESCO), 2021.

6. Gangahagedara R, Karunarathna M, Athukorala W, Subasinghe S, Ekanayake P. Emergency Teaching–Learning Methods (ETLM) during COVID-19: Lessons Learned from Sri Lanka. Education Science 2021; 11: 579.

7. Monica V, Priya K. It is time to change the narrative - Measuring the devastating impact of COVID-19 on the education of children in tea plantation communities in Sri Lanka. [Internet] https://reliefweb.int/report/sri-lanka/it-time-change-narrative-measuring-devastating-impact-covid-19-education-children (Accessed on: 04/06/2021)

8. Keegan D. Concepts: Problems in defining the field of distance education. American Journal of Distance Education 1998; 2: 4 -11. DOI: 10.1080/08923648809526619

9. Sue Greener. Exploring remote distance learning: what is it and should we keep it? Interactive Learning Environments 2021; 29(1): 1-2. DOI: 10.1080/10494820.2021.1848506

10. Shivangi D. Online Learning: A Panacea in the Time of COVID-19 Crisis. Journal of Educational Technology Systems 2020; 49: 5–22.

11. Ashani A. Building a Crisis-Resilient Education System in Sri Lanka. [Internet] https://development.asia/insight/building-crisis-resilient-education-system-sri-lanka (Accessed on: 04/02/2022)

12. Piyumani R. Zooming of Education [Internet] https://groundviews.org/2020/06/21/zooming-of-education/ (Accessed on: 03/02/2022)

13. Chanka J. Sri Lanka school reopening: N.I.E. plans to cover the core syllabus in 20 weeks. [Internet] https://economynext.com/sri-lanka-school-reopening-nie-plans-to-cover-core-syllabus-in-20-weeks-87686/ (Accessed on: 02/02/2022)

14. Rajeepa S. Impact of COVID-19 in the Sri Lanka education system. [Internet] https://www.aiesec.lk/impact-of-covid-19-in-the-sri-lanka-education-system/ (Accessed on: 26/02/2022)

15. Sandeepani D.M.M., Wagachchi SU, Harshana P.V.S., Samaraweera G.C. Effect of COVID-19 on the Education of School Children: A Case Study in Mulatiyana Educational Zone, Sri Lanka. 18th Academic Sessions. University of Ruhuna, Matara, Sri Lanka. 2021.

16. Sumitra P, Roshan C. A Literature Review on the Impact of the COVID-19 Pandemic on Teaching and Learning. Higher Education for the Future 2021;81: 133–141.

17. Tara, B. Education from a distance: is Sri Lanka really ready? [Internet] https://brunch.lk/education-from-a-distance-is-sri-lanka-really-ready/ (Accessed on: 03/06/2020)

18. Gamage N, Zaber M. Teaching and Learning in Distance Mode during COVID-19 in Sri Lanka and Bangladesh. ResearchGate 2021.

19. Digital technologies for education during the COVID-19 crisis in the Global South. Policy Brief 1 Colombo, March 2021.

20. Computer Literacy Statistics, Department of Census and Statistics Sri Lanka. 2019 (Annual).

21. Liyanagunawardena R, Williams A. Emergency Remote Education: Experience from Sri Lanka during Covid-19. Asian Journal of Distance Education 2021; 16(1).

22. Jim S, Megan K, Beth T, Angela J, Erik R, et al. The impact of COVID-19 on student achievement and what it may mean for educators. [Internet] https://www.brookings.edu/blog/brown-center-chalkboard/2020/05/27/theimpact-of-covid-19-on-student-achievement-and-what-it-may-mean-for-educators/ (Accessed on: 02/06/2020)

23. Kamanthi W. Distance learning in Sri Lanka [Internet] https://www.dailymirror.lk/news-features/Distance-learning-in-Sri-Lanka/131-189047 (Accessed on: 10/07/2020)

24. Beck U. Risk Society: Towards a New Modernity. SAGE Publications Ltd 1992.

25. Gloria T, Diana E. 3 ways the coronavirus pandemic could reshape education [Internet] https://www.weforum.org/agenda/2020/03/3-ways-coronavirus-is-reshaping-education-and-what-changes-might-be-here-to-stay/ (Accessed on: 06/06/2020)

26. Tadesse S, Muluye W. The Impact of COVID-19 Pandemic on Education System in Developing Countries: A Review. Open Journal of Social Sciences 2020; 8: 159-170.

27. Poornima L, Sandy M. 4 ways COVID-19 could change how we educate future generations [Internet] https://www.weforum.org/agenda/2020/03/4-ways-covid-19-education-future-generation (Accessed on: 06/06/2020)

28. Kaliope A, Tigran S. Managing the impact of COVID-19 on education systems around the world: How countries are preparing, coping, and planning for recovery. [Internet] https://blogs.worldbank.org/education/managing-impact-covid-19-education-systems-around-world-how-countries-are-preparing (Accessed on: 02/06/2020)

29. Arachchige SPR, Sathsara KLT, Preethika P, Viraj Miyuranga KA, Supun Harshana RKMD, et al. Immediate Actions to Minimize the Impact of COVID-19 on Education. International Journal of Multidisciplinary Research and Publications 2021; 4(2): 25-34

30. Ashani A, Thisali DS. Mitigating Sri Lanka's COVID-19 education crisis: Priority areas for action. [Internet] https://www.dailymirror.lk/businessopinion/Mitigating-Sri-Lankas-COVID-19-education-crisis-Priority-areas-for-action/306-214005 (Accessed on: 28/02/2022)

31. Osman A, Keevy J (Ed.). The Impact of COVID-19 on Education Systems in the Commonwealth. 2021.

32. Olaganwantte Chandasiri. The COVID-19: impact on education, International Journal of Advanced Education and Research 2020; 5: 13-14.