

# Traditional Learning Vs Online Learning on Education in Sri Lanka: A Study based on the Pre and Prior Academic Knowledge of Secondary Students Covid-19 Pandemic Online Learning.

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## **Abstract:**

**Purpose** – The purpose of this research is to determine what impact does online learning strategies have on students' academic knowledge and teachers' professional development and how the teacher-student relationship is affected by the implementation of online learning and finally to understand how does the implementation of online learning affect student's academic skills and knowledge.

**Methodology** - This study covers 315 participations (students) including 15 secondary school classes and 41 teachers in Vidyaraja Maha Vidyalaya at Hokandara. Qualitative data would be used for the research to collect for this case study. This case study focuses on the secondary classes to help teachers analyse their strategies for engaging students and increasing student academic knowledge with the online learning instructional method.

**Key Findings** – The key findings include access to technology, online learning, E-Learning in the Context of Sri Lankan Education, E-Learning as a Self-Learning Mechanism, Teacher and Student Knowledge on E-Learning Systems, Teacher-Student Relationship and COVID-19 are other concerning factors that highlighted most after the seven independent variables.

**Implications** – The findings of this research are projected to give a practical contribution to students, teachers and other educators as well as the government of Sri Lanka to understand the ways online learning strategies have an impact on the academic knowledge of the students as well as teachers' professional development and to advance the learning systems in the secondary education children that is suitable the forthcoming generation.

(Organization, 2020). Sri Lanka reported the first case in a Chinese tourist on 27th January 2020 and subsequently in a local person on 11th March, 2020. As in many countries worldwide, part of the consequences of the Covid-19 pandemic lockdown of the schools in Sri Lanka on 13th March 2020 and only partially reopened in June again closed the of year vacation in October in the 2020. The emergency of the Covid-19 outbreak, strict measures were to minimise human mobility. On 20th March 2020, a nationwide curfew was imposed and extended with a strict ban on inter-district travel. Three populous Colombo, Kalutara and Gampaha districts were identified as high-risk zones. The Sri Lankan Government announced the nationwide curfew on 19th April 2020 the nationwide curfew and to implement moderated travel restrictions. Schools are closed until mid-May and will continue online teach until further notice.

This free public education scheme was implemented in Sri Lanka in 1943 by way of basic, intermediate, and higher levels of education up to the tertiary level providing and enhancing educational opportunities and connectivity for economically marginalised backgrounds. In our typical daycare classroom, small childhood children of diverse economic and cultural contexts are capable of an informal learning atmosphere more or less even. (Does this sound like a paraphrase? It's close enough to the initial, encouraging us to use the original vocabulary and clarify what we wish to communicate, e.g., how the original source is described.) From what we hear, physical distancing is inevitable for at least the next few weeks, and certainly for months if not years, to come. What occurs when all that is learned in school is performed digitally so there is no longer an atmosphere to study in?

According to (Daily FT, 2020) if the government thinks online courses are the best way out, they can take action to ensure this becomes more easily accessible, because both students and teachers will keep the costs down. Online schooling would certainly not make the differences that are still developed worse as early as the beginning or over a prolonged period.

## I. INTRODUCTION

### 1.1. Background of the Study

The Covid-19 Pandemic has been and still is a severe challenge to the world. An outbreak of a novel Coronavirus (Covid-19) was reported in Wuhan province, China. In December 2019 (Huang C., 2020), they were causing numerous deaths and complications such as pneumonia and acute respiratory distress syndrome. The infection rapidly spread to all parts of the globe and was declared a pandemic on 11th March 2020 by the World Health Organization

Furthermore, this tent will mask the economic pain and reduce the painful suffering of the thousands of people who have to find a way to make ends meet, such as by introducing the non-profit lunch service, improving the underpayment of the "Mahapola" and adding student accommodation. Steps would mean that students from disadvantaged backgrounds are facing face a serious issue finishing their schooling (Daily FT, 2020).

However, the Covid-19 posed enormous challenges the traditional education system, there was a global need globally for every government to incorporate online education into their education system, still Sri Lankan government was not given much importance into the online education system before the Covid-19. Online education has become an essential component of Sri Lankans' education sector, still many obstacles and challenges confront the Sri Lankan education sector to perpetuate online education successfully. This study further highlights issues concerning the online teaching and learning environment and a lack of online teaching and learning skills among teachers, staff, students, and parents that were considered critical to the smooth functioning of traditional teaching and learning process of the secondary school of Vidyaraja Maha Vidyalaya, in Hokandara of Sri Lanka during the Covid-19 pandemic. This study investigates the secondary students' issues in the impact of Covid-19 Online learning vs Traditional learning.

### 1.2. Problem Statement

This study aims to determine whether there is a difference between traditional and online learning for secondary students in Vidyalaya Maha Vidyalaya due to the Covid 19 pandemic. This study would inquire into the issues that would occur in implementing an online learning experience. Since they did not have any knowledge about online learning and passed the two previous terms by downloading academic activities and working through WhatsApp application and converting PDFs into worksheets during the crisis. Only the senior secondary students (year 10-12) had the accessibility to do classes on Zoom on weekdays to two to three hours. Due to their social and financial issues, the school administration difficulties. Regardless of many of its weights to function The Ministry of Education declared that online education should also be continued with all students, from 4th January 2021.

Therefore, this study was designed to investigate secondary students, teachers and parents' perceptions regarding the difficulty of online learning and their pre and prior alchemical knowledge of Covid-19 pandemic online learning. Referring to (Daily FT, 2020), online classes restrict students who do not have the economic resources to buy the required equipment attend and be able to communicate with their peers and instructors. How many students from where our students come hail today have secure power supply and internet connections? When many working-class households are trying to find a way to support themselves, is it ethical to incorporate the extra burden of making sure their children have access to schooling on the internet? Referring to the pupils, how many

have an atmosphere in their households that is peaceful enough that they can focus and study free from disturbance from other family members? Do the factors weigh in these facts as we are seeking to move to online education? These questions tend to be the trigger points of the problem statement.

The following illustration represents the general information on the Sri Lankan education system as the year 2017 (WENR, 2017).



Figure 1. Education in Sri Lanka (WENR, 2017)

### 1.3. Research Question

The following are the research questions for the study:

- Q1:** What impact do online learning strategies have on students' academic knowledge and teachers' professional development?
- Q2:** How is the teacher - student relationship affected by the implementation of online learning?
- Q3:** How does the implementation of online learning affect the student's academic skills and knowledge?

### 1.4. Scope of the Study

The coverage of this study will be based on 120 days (4 months) of research and examining the impact of online learning on secondary students' engagements and achievements in Vidyalaya Maha Vidyalaya. This case study will highlight the suitable suggestion to overcome issues regarding online learning.

- What impact do online learning strategies have on students' academic knowledge and teachers' professional development?
- How is the teacher- student relationship affected by the implementation of online learning?
- How does the implementation of online learning affect the student's academic skills and knowledge?

This study covers 315 participations (students) including 15 secondary school classes and 41 teachers in Vidyalaya Maha Vidyalaya at Hokandara. Qualitative data would be collected

for this method of case study. This case study focuses on the secondary classes to help teachers analyse their strategies for engaging students and increasing student academic knowledge with the online learning instructional method.

### 1.5. Objectives of the study

The purpose of the study is to conduct survey-based research on the pre and prior academic knowledge of secondary students' Vidyalaya Maha Vidyalaya due to Covid-19 pandemic online learning. The study focuses on the following objectives.

- To improve the various positive impacts of the Covid-19 pandemic online learning vs traditional learning.
- To enlighten various measures taken by the Ministry of Education in Sri Lanka for the education sector during this pandemic.
- To investigate some negative impacts of the Covid – 19 pandemic online learning and to present suitable strategies for continuing education during this pandemic situation in secondary school at Vidyalaya Maha Vidyalaya.

### 1.6. Significance of the Study

The study findings will be partially responsible for the benefit of student and the education system of Sri Lanka with regards to remote learning. Moreover, the research will help the Ministry of Education, government, semi-government, and private schools to develop strategies that mutually benefit both educators and learners due to COVID-19. The research paper will help to learn about the developments required and currently taken into consideration in the education industry of Sri Lanka. This ensures that the reader understands how the secondary education industry functions and observes the industry's process to take relevant decisions for improvements in the country's secondary system.

### 1.7. Structure of the Report

Chapter One – takes into consideration about the research overview. The secondary education industry of Sri Lanka is the selected industry for out the research. The background of the study gives a brief description of the current pandemic as well as the effects on the education industry resulting from COVID-19 providing along with the problem statement, research problem, the scope of the study and highlighting the importance of carrying out the research.

Chapter Two - the second chapter of the research is focused on review of the literature in the industry and COVID-19 relating to the study. This chapter contains subsections as it is the main body of the literature review. These subsections highlight the factors that addresses the research questions of the study.

Chapter Three – takes into consideration the research methodology. Moreover, this chapter contains about the research strategy, selected suitable research approaches,

sampling methods, sample size, collection of data, recording and administration of data, instruments taken into consideration in order to collect data and so on. Furthermore, this chapters contains about the conceptual framework that has developed based on the literature review, purpose of this study and the research problem.

Chapter Four - is the significant part of this research study as it focuses on the analysis as well as the presentation of the data collected. This chapter further discusses about the area that has been selected, the analysis and the interpretation of the key findings that is needed as a solution to the research problem and research questions that has been carried out in this study.

Chapter Five - The final chapter consists of the executive summary of the key findings. Furthermore, evaluations and interpretations will be discussed under this section. Moreover, this chapter includes the suggestions and recommendations for the intended target group with regards to the findings as well as assists future researchers in order to expand the scope of the same study.

## II. LITERATURE REVIEW

### 2.1. Introduction

Online learning has grown in prominence, and it is actually the most preferred form of distance education. In the last 10 years, the internet has had a huge effect on postsecondary education and the movement towards internet is still growing. Moreover, the author discusses and examine the aspects in which students present themselves digitally and how the teacher now takes a more active role in the classroom (Stern, 2020). Online education is a flexible instructional delivery system that encompasses any kind of learning that takes place via the Internet. Online learning gives educators an opportunity to reach students who may not be able to enroll in a traditional classroom course and supports students who need to work on their own schedule and at their own pace (Sun, A & Chen, X., 2016). The quantity of distance learning and online degrees in most disciplines is large and increasing rapidly. Schools and institutions that offer online learning are also increasing in number. Students pursuing degrees via the online approach must be selective to ensure that their coursework is done through a respected and credentialed institution (Hayashi, Garcia, Maddawin, & Hewagamage, 2020).

The purpose of this action research study is to determine implementing the online learning would increase secondary students' engagement and mastery of the academic concepts. As an approach utilizing both tradition and online learning can modify to best meet the needs of students. Online learning characterized as an innovative studying method that utilize technology devices consist of tablets, computer, laptop, interactive television, audio, video and internet connection, satellite broadcast and so forth to deliver to the lesson content (Leiserson, 2020).

## 2.2. Online Learning

There are a wide range of terms interchangeably used to define e-learning such as “distance education”, “electronic learning”, “internet learning”, “e-learning”, “online courses” or “learning portal”. Among these so-called online learning terminologies, the name of “e-learning” is most well-known and extensively adopted. E-learning is a digital platform, according to the Technology Standard Committee, using web browsers as an interface method to communicate with learners and other programs.

In above statements explain the importance of online courses, E-learning and electronic or internet learning approached to development of the students’ 21st century skills such as, inquiry, problem solving and decision making. The authors specially mentioned the online learning is very suitable for this new world and it became central part of the education. There are both benefits and drawbacks to learning by going online. To begin with, in terms of pros, it is undeniable that online learning is very efficient (Hayashi, Garcia, Maddawin, & Hewagamage, 2020): anybody from anyplace in the world can now or before in the future can be in the lecture or the class anytime they want. as a result of that, a majority of the students have permission to participate in the lecture or class. students who are injured don’t have to worry about getting an unexcused absence. Due to the advent of internet learning, many students are turning to outside outlets to do their research. Their study process is much more efficient because they don’t have to rely on external sources of information when in the classroom with other students. Students are often distracted from their own studies and steal other students’ homework assignments or papers, particularly if they believe their answers would be easier or have questions about them (Hayashi, Garcia, Maddawin, & Hewagamage, 2020). Offline learning may not be useful in a class situation, but students can use it in their everyday lives when researching and doing assignments are things on their own rather than coming to the lecture students’ lives are also made easier with online learning if students do not have to leave their homes to attend lectures or lessons online, then they have a lot of time to participate in activities they enjoy (Hayashi, Garcia, Maddawin, & Hewagamage, 2020). This also enables families to stay at home with less strain while working, while at the same time saving money and making life simpler for them. more typical kinds of educational programs, which research shows have shown to take a greater amount of time to finish, often take less time to complete there is a minimum age requirement for completion of five years of education required for a Sri Lankan doctorate.

Ferdousi (2009) describes e-learning as an interactive forum that connects teachers and learners. E-learning has become a central part of university education since it has become a popular style in the globe to provide educational materials as it seeks to enhance performance, build skills, promote access, reduce costs and inspire a lot of learners and educators (Ali & Magalhaes, 2008). According to Ozkan and Koseler (2008), the attitude of students can be considered as a major impact on

the e-learning process in which learners are highly encouraged to self-study, self-discover, and self-organize their own learning procedure. Additionally, learners’ attitudes are evaluated by the aspects of self-productivity, pleasant experience, communication with teachers and classmates and learning manner. (Passerini, 2020) point out in their research that learner characteristics, such as attitudes, enthusiasm, confidence, and trust, must be recognized first. However, though the online courses may be well designed, rich in the content and materials, the information system could be fully equipped, if the perspective of the students is not appropriate, the online-learning will fail to succeed.

Teachers are not only an essential part of learners’ participating progress, but also a dominant representative in an instruction. Lessons are at the best when students are encouraged to become active learners. (Kim, 2012) declared that teacher is the most significant e-learning effectiveness driver who plays a crucial role in enhancing learner’s satisfaction and inspiring students to participate in different potential learning circumstances. Thus, instructors who are highly active with e-learning can positively increase student satisfaction by providing in-time response, motivation support, dispensing suggestions and giving favorable assessment. Several key findings identified that students’ responsibilities and how often they used various web-expanding resources, as well as technological characteristics, content-area experiences, such as technology and interface design, were influential in determining their involvement on the number of online courses they will have. At the same time, these factors can interact with one another, forming a reciprocal relationship (Vonderwell & Zachariah, 2005). Online learning may not be useful in a classroom setting, but students may use it in their daily lives when they need to conduct research or complete assignments without attending a lecture. Online learning also makes students’ lives simpler. Students have more freedom to engage in activities they enjoy if they do not have to leave their homes to attend lectures or lessons online (Hayashi, Garcia, Maddawin, & Hewagamage, 2020). This also encourages working people to stay at home with less stress while saving money and simplifying their lives. There is a minimum age requirement for completion of five years of education required for a Sri Lankan doctorate. More common forms of educational programs, which evidence indicates take a longer time to finish, also take less time to complete.

Nevertheless, the negative impacts of online learning are evident in the way people treat it, specifically the difficulty of using it. The shortcomings of technology can include: Students don’t get much time to practice, which makes them less proficient in their use of it, and lack of face-to-face interaction, as well as limiting the scope of what is learned and created through the application of new technologies (Chu, 2014). Moreover, referring to (Alawamleh, Al-Twait, & Al-Saht, 2020), self-motivation and time management are important requirements for learning to expand. Students who haven’t developed their communication skills have a problem

communicating online. The detection of misconduct throughout online tests is a complex problem.

### 2.3. *E- Learning in the Context of Sri Lankan Education*

In this context, the Sri Lankan government closed all schools and the universities in the country 12th March 2020 and suspended all academic activities (Adaderana, 2020). The government also imposed a nationwide curfew on 20th March 2020 (First, 2020). During this period, Sri Lanka's higher education sector faced various challenges. The closure of fifteen national universities and other higher education institutions ultimately affected the teaching and learning activities of students. School admission, assessment and examination, graduation ceremonies, recruitment and promotion activities were temporarily postponed. Employees working in higher education institutions also faced severe challenges in receiving their salaries and other allowances on time because of the continuous curfew. In this situation, the government announced a strategy called Work from Home, and this move forced school teachers and other staff to carry out their academic and administrative work from their respective homes. In this third and fourth statements explain; this kind of global pandemic situation, online learning is how essential to education. As in many countries, worldwide government announced a strategy called "Work from Home" and traditional learning environment moved forced to online learning approach. Technology issues have become a rising problem among the students in the secondary education. With reference to (Sorris, 2020), When it comes to digital tests, the main issue that nations including Sri Lanka have is whether they can assess a students' learning equally and correctly in situations where they can't be physically supervised. Moreover, The Sri Lankans are known for taking examinations seriously and doing so in a tightly controlled atmosphere with the invigilator serving it as primary monitor to obtain equitable competitiveness.

SLIIT an educational institute in Sri Lanka argues that online exams cannot sustain certain conditions. Although there are still risks, the way online tests are structured for remote environments varies from how conventional exams are performed. Technically, strict scheduling can be maintained, and a bank of questions can be set up, with each student obtaining randomly selected questions. Since all tests will be administered using an open book system, there will be a level playing field, allowing for more difficult questions to be posed, as learners will be graded on how well they apply their information to answer the problem rather than on how well they learn and remembering it. Remote tests can be improved even further by one-on-one verbal exams. When providing postsecondary studies in the non-state arena, it is important to stick to schedules and timetables. For one thing, students pay for their courses with private money or college loans, which introduces the concept of "opportunity cost." These learners must be the first to arrive in order to secure certain positions (Daily FT, 2020).

According to (Hayashi, Garcia, Maddawin, & Hewagamage, 2020), overall, another significant problem in online classes is internet accessibility. In small cities and towns, however, internet availability and connectivity have improved by leaps and bounds, but good enough bandwidth is still an issue to need to make reliable internet an impossibility. When students or teachers cannot access the internet for an extended period of time, studying, the same resources used earlier in the year will be gone when they return. This poses a challenge to the overall educational process. (Hayashi, Garcia, Maddawin, & Hewagamage, 2020) highlights students benefit greatly from living in close quarters with those of the same age. Additionally, in an online class, there are few if any physical interactions among students and the teachers. In general, this leads to students having a sense of being cut off from the rest of the world. It is important that the school makes accommodations for the students in this situation to communicate with their peers in other ways, as well as for teachers.

With reference to (Daily FT, 2020), Despite the fact that Sri Lanka scores well on most health indicators, child nutrition is still a major concern. According to the 2016 Demographic and Health Survey (DHS), more than 20% of Sri Lankan children under the age of five are underweight. Malnutrition is more common in poor households, which is unsurprising.

In Sri Lanka, successive governments have implemented a number of programs aimed at improving child nutrition. School and preschool meal programs are particularly important in combating malnutrition among young children. Up to one-third of a child's daily nutritional needs are met by free meals distributed in schools. Some parents promise their children a meal if they attend school. According to statistics, children from low-income families are more likely to be malnourished than children from high-income families. In fact, the number of underweight children in low-income families is nearly double that of high-income families (Daily FT, 2020).

According to IPS research on malnutrition in Sri Lanka, a lack of protein-rich food in daily diets is one of the major causes of child malnutrition among poor households. It also shows that growth deficiencies increase significantly with a child's age, especially after the first two years. In Sri Lanka, for example, 22 percent of children aged 24 to 59 months are underweight. Growth retardation in children indicates insufficient food intake, either in terms of quantity or quality (Daily FT, 2020).

Furthermore, nutritional deficiencies in childhood can lead to permanent growth deficiencies. Inadequate intake of specific micronutrients, such as iron, folic acid, and iodine, has been shown to stunt brain and nervous system growth. In light of this, school and pre-school meal services are critical in bridging the nutrition gap for disadvantaged children (Daily FT, 2020).

Schools and preschools have been closed for almost three months and until further notice due to the COVID-19 pandemic. To make matters worse, many poor families'

breadwinners have already lost their jobs or sources of income as a result of the COVID-19 crises' economic disruption. As a result, thousands of poor children in Sri Lanka may suffer from nutritional deficiencies as a result of missed school meals. This is a serious situation, since dietary shocks in childhood can have long-term implications for health and education. In light of this, the blog will address several methods for reducing nutritional effects among vulnerable children (Daily FT, 2020).

The regular school meal program, which costs about Rs. 6 billion annually and feeds approximately one million children in grades 1 to 5, covers 80 percent of Government schools. The preschool nutrition program, likewise, seeks to enhance the nutritional status of young children in low-income areas. Schools in these systems follow accepted guidelines to meet the nutritional needs of children on a regular basis, and the meals are healthier than food taken from home. This is generally the only nutritious meal for poorest children in Sri Lanka (Daily FT, 2020).

When schools are closed, children lose access to food services worth at least Rs. 650 per month, while preschoolers lose access to food supplements worth around Rs. 370 per month. Feeding children is costlier for parents because retail food costs are higher than bulk-purchasing rates at schools. As a result, missing school meals during the pandemic would worsen poor families' food-related financial pressures. Several relief measures have been implemented by the government to ensure food security in households during the COVID-19 crisis in Sri Lanka, including price controls for rice and vegetables, government distribution of vegetables and fruits, and home gardening.

During the lockdown, Samurdhi recipients and other disadvantaged classes, including some informal staff, received a monthly consumption support of Rs. 5,000. These interventions, however, are insufficient to combat hunger and nutritional deficiencies, as addressed in a recent IPS article, owing to inadequate targeting and administration issues (Daily FT, 2020).

Given the financial strain placed on low-income families during the crisis, the government should consider diverting funds and resources to improve emergency nutrition programs for specific groups such as babies, schoolchildren, pregnant women, and others. The current situation is unprecedented, and it is uncertain how long school closures will continue; primary grades, in particular, will not reopen until September 2020 at the earliest. Because of the precautionary health measures in effect, schools are unable to provide food services while COVID-19 is a danger. Instead, with the support of school boards – principals and teachers – the government should take alternative steps to ensure that the needs of low-income children are addressed during these extended school closures. Delivering rations and expanding cash and voucher services are just a few of the recommendations. In Argentina, for example, there is already a policy in place to provide cash incentives to mothers with children under the age of five; the

incentive has also been extended to include the cost of missed school meals. To assist families with children under the age of ten in Sri Lanka, the government should consider converting school meal allocations to cash vouchers or food packs. Following the crisis, the government should implement a special nutritious meal program for schoolchildren that includes fortified rice to compensate for growth deficiencies that occurred during the crisis (Daily FT, 2020).

Furthermore, UNICEF suggests that, in the midst of an emergency, basic nutrition and health programs be rapidly expanded, as this can significantly boost children's nutritional status. For example, a few months after the earthquake in Haiti, about four million Haitians received nutritious food, including ready-to-use therapeutic food (RUTF). As part of primary health care facilities, the Sri Lankan government should consider introducing special nutrition measures, such as the use of RUTF to treat malnourished children. The inequalities in health and educational outcomes exacerbated by the COVID-19 crisis will be felt for years unless the government moves quickly to address the nutritional needs of vulnerable children (Daily FT, 2020).

Through the online platform, students may join in an online meeting, connect using their video cameras, and be made aware of the nature of their differences so-of meeting participants at the same time, as opposed to having to them finding out about these disparities after they're integrated into the virtual one. Moving on, Teachers need to have a fundamental understanding of new ways of learning if they want to use online learning (Hayashi, Garcia, Maddawin, & Hewagamage, 2020). On many people, many occasions, though, this is not the case. Technology is also used by teachers in their teaching for simple and limited ways. Thus, in certain cases, they do not have the requisite digital resources or equipment to conduct online classes. Since technology is constantly evolving, it is essential for schools to invest in teaching techniques that enable students to use the newest offerings, such as keeping up with expanded training and updates on online tools (Hayashi, Garcia, Maddawin, & Hewagamage, 2020).

Prior to the Covid-19 era, however, online learning systems were used in a minor way in educational institutions, or for personal learning, but they've recently gained in significance in popularity and have fully overtaken it in recent years. A shortage of funding in the education resources needed to be addressed to help with the Covid-19 created a worldwide challenge for governments to put money into the Internet education system. Online education was generally had previously been given limited attention in the Sri Lankan university sector before the Covid-19 was created. Although school closures had increased the pressure on the government to maintain the accessibility of secondary education during the crisis, an online education option had provided a temporary alternative so that more students could continue their studies before schools reopened (Hayashi, Garcia, Maddawin, & Hewagamage, 2020).

In addition, COVID will be on the verge of complete curtailment in the foreseeable future. Even if this were to occur, everyone should expect isolated occurrences of the pandemic, as it almost certainly would, a new wave of unrest to follow. Since schoolchildren need to learn long-term and short-term responses to both natural and man-made disasters, it is important to produce both immediate fixes and lasting changes at about the same time of disasters (Gamage, 2020).

In light of the various crises that could occur, the EF Education Sri Lanka has put in place a program of virtual discussions about "Timely Learners" in the future to look for practices in distance education and make suggestions to policy makers about how to use them. The concerns that arose from 20 to over a dozen more case studies of teachers and additional comments by the participants in our first discussion round-up show up on paper (Gamage, 2020).

And over 60% of families with schoolkids do not have internet access to the internet would have a high (good) possibility of subscribing to a mobile broadband services by LISignetGlobal, in 2018 only 34% of Sri Lankan households with children aged five to eighteen have Internet access to broadband. All of these connections are made through mobile networks, which uses a smartphone at a rate of more than 90% (Gamage, 2020).

This platform is used by a small populations of students at just a few of these campuses, which allows for an online Real-Time Classroom learning experience. This time to be spent would be completed with online instructional resources that you can complement with your self-learning, which would add to the duration of each day. Even some of the most famous schools in Colombo schools have been unable to provide such an online learning opportunities to their students (Gamage, 2020).

When one in three-tenths of the families in the world have internet access, they use apps such as WhatsApp and VIBER for education, the primary mode of getting information is still via online correspondence for those families who only have a smartphone which they use together with their children is difficult, particularly those who also want to use it in the family setting, setting it up so it only connects to one or a few people can be a huge challenge. When a large amount of notes are submitted, the situation gets out of hand. While the remaining 60% of the population has not yet met their expectations (Gamage, 2020).

Almost all families in the undeveloped nations are now covered in Sri Lanka because as opposed to, for example, when 97% of households there were covered in that country, owning a phone was considered a luxury. As of the people in Sri Lanka have regular access to the internet, 50% of the population is still left without regular or affordable access to it.

They would be willing to go the extra mile to provide access to computers to their kids if they see how important it is for their students' education (Gamage, 2020).

Parents in Sri Lanka pay over the last year allocated 50% of their money to education and other required course costs, including tuition, on the average (as a proportion of their total spending, if the country advances in terms of e-based learning, children and learners' textbooks will decrease the requirement for face-to-face teaching. This means there will be more e-but less stressful-people and material-based-provided study methods that can help a child do their schoolwork and information will be gained more easily (Gamage, 2020).

A significant portion of the Sri Lankan population has only the ability to expand their horizons if they are given the opportunity to develop and prosper. There are 95% of schools in rural and 65% of the general education budget are provided to those who have students from a lower socio-economic background. The central government is expected to pay out 35% of the money, which is roughly equal to the 5% spent in average on suburban school tuition, with the remainder being reimbursed by the states. People who live in disadvantaged areas, impoverished neighborhoods and in countries that were previously burdened by poverty have lower levels of education, literacy, and achievement, and greater opportunity for those living in the north and east of the world may benefit greatly from increased literacy. Teachers and other experts move to places where education is most valued, such as popular urban schools, which make it difficult for rural schools to keep up with the latest trends and advances. Students from low-and middle-income families, ethnic minority, and minority ethnic students from low-income families tend to be particularly at risk when it comes to a lack of trained STEM teachers. At the age of 14, many dropouts claim that a career is no longer essential to their learning. The study, conducted by the National Youth Panel, discovered that only 40% of those in the age group of 17-18 decided to pursue their education. One fifth of the students who leave school dropout from dropout programs fail to enroll in career training. Of those who finish school, over 90% are unable to enroll at the vast majority of them have no opportunity to enter university because of lack of seats (UNICEF Sri Lanka, 2021).

Low participation rates and frequent drop-outs: One major factor for those things is the assumption that employment/the work market-relevant skills are not being imparted to students during their school years of study. More than two-thirds of the drop-outs in the nation (69%) saw little value in a degree of schooling, which confirms the results of the recent National Youth Survey, a college completion rate of just isn't required for gainful jobs. A percentage of the most significant findings of the Sri Lanka 2018 Graduate Outcomes Survey reveal, as-Research by Morduch et al. (2017) indicate, technical and job-specific skills are deficient in students; Troubleshooting and problem solving skills, both of which are in high-school and general graduates are non-existent; According to Morduch et al. (2017), low technical and problem solving and cooperation/social skills abound in secondary school graduates (UNICEF Sri Lanka, 2021).

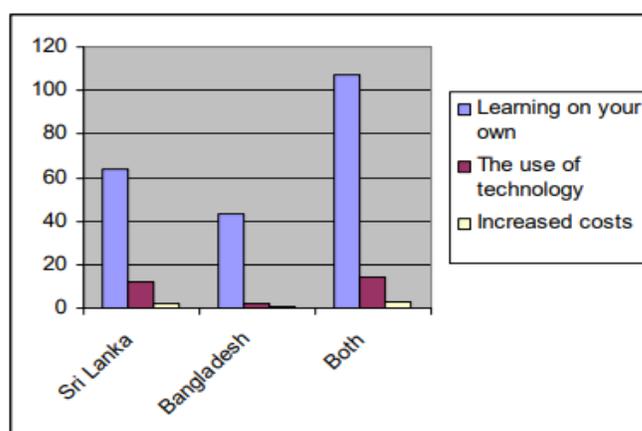
Additionally, there are significant disparities in both pedagogy and subject skills between teachers, which influence poor learning outcomes. Teacher preparation curricula and deficient instructional resources impede activity-based learning. The use of newer curricula is enhanced when materials to develop students are provided, which support the ability to master difficult concepts are combined with deeper learning, and access to technology to learn how to help these concepts are provided are both addressed. Teachers with low pay scales inevitably contribute to the majority of their lessons becoming uninteresting and irrelevant for students, thereby making the profession not worth the effort for the ones who remain. In addition to a lack of recognition, encouragement, various incentives are offered as another common motivator for teachers to disengage from their students, particularly in low-poverty settings (UNICEF Sri Lanka, 2021).

Adolescents must be motivated and encouraged to become members of society, while being responsible for keeping their positive, so that they can have the opportunity and work to mend conflicts and get on their feet out of every state school with 94 per cent of Sinhalese schools alone continues to provide instruction in Tamil only since the other sixteen per cent cater only to 96 in total of students only for the other sixteen per cent of the sixteen per cent of students (30 per cent). In two out of three quarters of all children, a majority of whom do not learn the country's official language (English) can. This represents a further issue, as well, in that basic education and teacher training also include courses and resources that work towards promoting a shared Sri Lankan identity and instead have ones that undermine global citizenship and human rights. Inactive students are missing out on opportunities to get involved in various ongoing activities, long-term projects and programs, including local or national ones, that have an effect on their lives. One way to keep children civically engaged is a duty to value diversity, especially that a need to better incorporate the education system, empathy, into children's character development. By political participation, they must also be motivated to become agents of change in their own neighborhoods and communities (UNICEF Sri Lanka, 2021). This project will benefit the community by assisting the educational ministry to implement a national action plan, which has given them the task of managing and coordinating the work in this particular field to the 'Peace Education and Reconciliation Unit' (the school's chapter of education's peace program). However, the implementation of this national strategy has been very gradual (UNICEF Sri Lanka, 2021).

#### 2.4. E-learning as a Self-Learning Mechanism

Self-Learning is known "as a mechanism by which persons take the lead, with or without the help of others, in identifying their educational needs, trying to formulate learning objectives, defining human and technological capital for learning, and assessing learning outcomes" (TEAL, 2011). Moreover, there has been a lot of study conducted on the advantages of e-learning for companies, academic institutions, as well as states (Sharma, Dick, Chin, & Land, 2007). In

school settings, several scholars have established self-regulation as an indicator of academic achievement. According to (Geng, Law, & Niu, 2019), Blended Learning (BL) creates a 'rich' educational environment with multiple technology-enabled communication forms in both face-to-face and online teaching. Students' characteristics are closely related to the learning effectiveness in the BL environment. Students' ability to direct themselves in learning and to utilise learning technologies can affect student learning effectiveness. The spectrum of an online class is from a standalone, self-paced curriculum to a highly competitive and engaging course that includes community assignments including discussions. One of the drawbacks of the more e-learning model, and one of the explanations why the self-paced style is often favoured, is that it necessitates the use of technologies to promote teamwork as well as continuing human encouragement and assistance (NEAL & MILLER, 2005).



(Andersson, 2020) - Figure 2 The distinction between online learning and traditional classroom setups - Sri Lanka & Bangladesh

The graph above depicts the biggest distinction between studying through e-learning and learning in a conventional classroom is the distribution of learning, technology and costs. With reference to (Andersson, 2020), this shows Sri Lankan education systems are much dependent on online studies and most of the students have learned to self-learn than depending on the lecturers or teachers. Nevertheless, the drawbacks of this scenario can be misguidance, loneliness and lack of peer engagement (Andersson, 2020). There are no participation standards in a self-paced program. Early hours lessons might not be feasible for students who other commitments. They will train at night, on weekends, or wherever they choose because online studying allows them to incorporate it into their schedule. This flexible scheduling often encourages students to learn from their residences and function outside of conventional class hours, granting them more flexibility throughout the day to explore other desires. This can result in developing a learning schedule according to their own preferred time spans (Digital Marketing Institute, 2018).

### 2.5. *Teacher-Student Relationship*

In order to reach a wide variety of students in a conventional and virtual setting, teachers need to be leaders. It is imperative to concentrate on building strong relationships (Zelihic, 2015). In order to do that, one must foster trust. Is an important aspect of improving online relationships and ensuring their full participation? They need to believe they have an active role in learning and advancing ideas, a feeling of self-interest satisfied cooperation, regardless of how “thinly or unstable” that trust may seem. Conversely, (Zelihic, 2015) mentions that others believe that building rapport in as different when conducted in virtual platforms is unlike the kind found in meetings and on the phone calls. An area of study called the 'Theory of Effective Leadership' incorporates behaviors and diverse leadership positions into highly varied scenarios and offers an introduction to what makes for a successful leader in the incredibly ambiguous world of management. Also provided researchers with an explanation for the proliferation of communication channels (of various complexity) among virtual leaders (the) suggested that task-related behavior and various levels of positivity and dynamism are utilized to reach students in classrooms. Teachers and students are working together in environments that are more restrictive of nonverbal communication than face-to-face classes may pose challenges, and there are still unresolved questions about their robustness and effectiveness (Song, Kim, & Luo, 2016). Additionally, (Song, Kim, & Luo, 2016) highlight that students in online environments can understand less about the teacher than they would in traditional classrooms because of the dynamics of the environment and systemic factors. There is not much research that has been done on the role of teacher self-internalization (TI) in e-learning settings, although decades of communication research indicate that it is important. On the basis of the structural equation model, the findings state that teacher self-disclosure and students' emotional responses to SD lead to greater satisfaction for the perception of information for both students and teachers (Song, Kim, & Luo, 2016). Once students are helped to develop their social skills and understand their own self-determined classroom style, researchers suggest teacher's unique style of classroom management, a model action, and the idea of leadership in class is extended, leading students to new interactions, and teachers will be able to exercise greater influence over their education (Zelihic, 2015).

### 2.6. *COVID-19*

According to (World Health Organisation, 2020), COVID-19 tends to be a novel virus and the majority of people infected with COVID-19 will have moderate to severe effects and will recover with no preferential treatment. When an infected individual coughs, sneezes, or exhales, the virus that causes COVID-19 is primarily transmitted by droplets. These droplets are too large to float in the air and fall to the ground or other surfaces easily. If they are in immediate contact to those that have COVID-19, individuals can be exposed by inhaling the disease or contacting a contaminated surface and afterwards touching the eyes, nose, or mouth (World Health

Organisation, 2020). With reference to (Daily FT, 2020), as the number of patients testing positive for COVID-19 rose to 43 at the time of publication, the government formed the National Operation Centre for Prevention of the COVID-19 Outbreak (NOCPCO), directed at reducing the virus's effects and have implemented strategies to reduce the effectiveness of the contagious disease. A committee known as NOCPCO was formed in Rajgiriya as directed by the Presidential Task Force with regards to COVID-19. Currently, there are 92,303 total COVID-19 cases, where 88,914 have been recovered and 566 deaths (Google News, 2021).

### 2.7. *Summary of Literature*

Teachers are a major contributor to the overall success of learners, as well as being crucial to the development of the participation that exists within the community. The best learning experiences occur when students are given opportunities to exercise their creativity. (Kim, 2012) claimed that teachers are the most important source of e-learning progress by raising learner satisfaction and motivating students to explore diverse possibilities. That is, teachers who are more dedicated to online learning will be better able to positively impact student satisfaction by offering assistance when students need it, being understanding and offering praise, and providing encouragement. Exemplary case: where teachers and learners come together to work on real, concrete projects to learn through interactivity, as an example, explain, since educational resources have become readily available on the trend to meet a broadening set of criteria has been based on product quality, improving abilities, and opening up education to as these resources serve to cut costs, as training materials for the learner population, and reach the largest amount of people, and meet the relevant criteria (Ali & Magalhaes, 2008).

Nevertheless, students and teachers do not know for how long their school systems are closed which means that they are unaware of their duties, and how to keep up with each other when the classes (Lucas, 2020). Online learning offers various challenges to students at the beginning stages of their careers, but is otherwise brilliant news. Students are encouraged to need to learn the skills needed to achieve success, such as an open mind, clear vision, and self-confidence (Ferradás, Freire, Núñez, & Regueiro, 2020). Following this method student will have a positive outlook when they take their lessons and excel. Moving on, digital technology holds significant promise for enhancing educational equity, but on the other, it, it must also be used to ensure that the growing disparities are not further enhanced. Students who are either behind or struggling in school or for different reasons need extra support should have access to technology and services to get extra help as well as to help being able to build up a support network with family members in the group, including continuous support from the teachers (OECD, 2012). Teachers and learning technologies will co-exist, but they will never be able to completely replace each other.

### III. METHODOLOGY

#### 3.1. Introduction

The study will be carried out according to qualitative methods of research in order to discover factors to improve the various positive impacts of Covid-19 pandemic online learning vs. traditional learning, to enlighten various measures taken by Ministry of Education in Sri Lanka for education sector during this pandemic and to investigate some negative impacts of Covid-19 pandemic online learning and to present some suitable strategies for continuing education during this pandemic situation in secondary school at Vidyaraja Maha Vidyalaya. Questionnaires will be distributed to both students and teachers to understand the pre and the post education system due to COVID19. Through the findings of the literature review, it could be seen that various reasons that existed pre and prior academic knowledge of secondary students during the Covid-19 Pandemic and online Learning. The main reasons or factors are; online learning, e-learning in the context of Sri Lankan Education and e-learning as a self-mechanism. These factors were directly and indirectly influence the online learning environment of the students.

#### 3.2. Research Strategy

The qualitative research is an empirical strategy, as it starts with current knowledge from the educational system and

extends that by drawing on literature excesses from Sri Lanka to seek to understand the initial knowledge of students in post-secondary education. After all the data have been obtained, nevertheless, a new hypothesis or an old theory has been disproved, it's all done but the conclusions are still may be made, either support or discredit the initial belief. While undertaking this study, the quantitative effort seeks to find how internet use in Sri Lankan secondary education can be used, the qualitative aspect seeks to gain an in-depth understanding about the reasons and possible outcomes of internet use in the education system.

Students and teachers are taken into the research study to analyse on how Vidyaraja Maha Vidyalaya has been affected with COVID-19 and the novel learning platform. Through this method this illustrates a better view about the school and the effects of the novel change. The findings will be displayed through graphs and charts as a thematic analysis and the data will be presented according to the given questionnaires to students and teachers.

#### 3.3. Conceptual Framework

Below are to have been shown as potentially affecting pre- and post-academic preparation in the Sri Lankan students as well as well as the ways to be the differentiated by the research under, and here are mentioned and presented as follows:

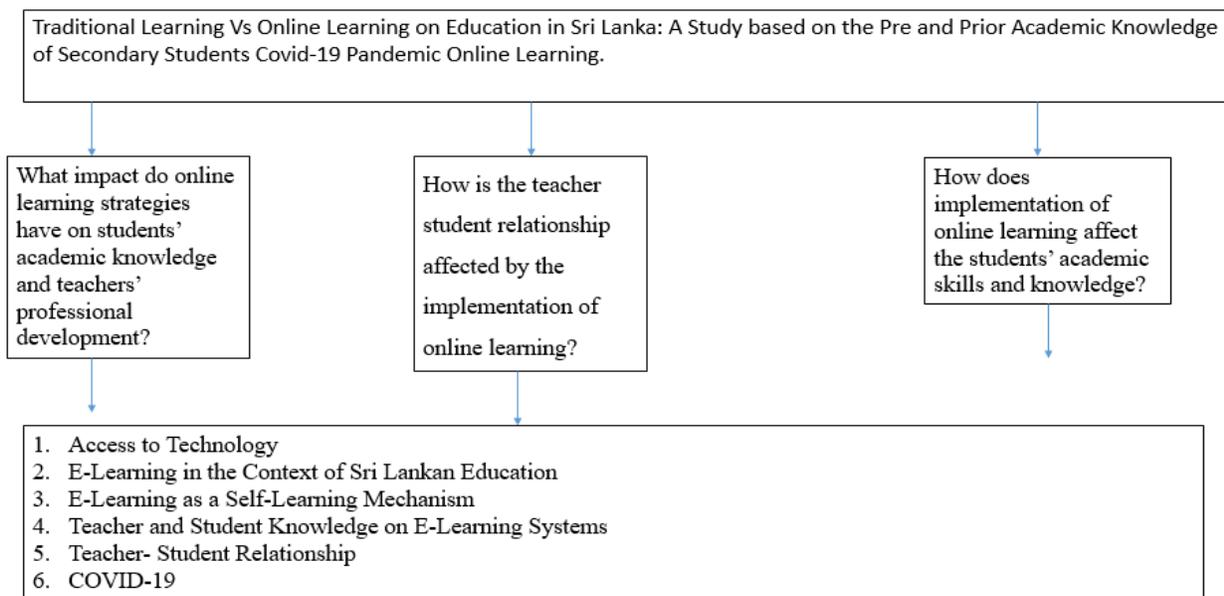


Figure 3. Conceptual Framework - Developed by the Author

#### 3.4. Definition of Factors

##### 3.4.1. Access to Technology

The age of the world having widespread use of computers and the Internet is considered to be a new stage of development in

which people are being "online". It is common for the word "intern autonomous computing" to describe someone who is now linked to the internet. all your entries are now redundant, unless and until they are packed with the proper words.

The education ministry encourages students to continue their studies by logging on to the official educational website "e-thakasalwa" over the period. Students can continue their studies by logging into the web site on the internet through the website [www.e-thaksoe.gov.lk](http://www.e-thaksoe.gov.lk) When students in Grades 1-13 are presented in three languages, the learning material is offered on the website is universally available (Lanka Education , 2020)

#### 3.4.2. *E-Learning in the Context of Sri Lankan Education*

This term defines the overall online education system of Sri Lanka. The term would undertake the novel trends, benefits and drawbacks with regards to online learning occurring in the industry (Lanka Education , 2020). Referring to much (including the officials from Sri Lanka) holds that blended learning unites the two excellent aspects of schooling; it has been heralded as combining the best of both types of education. What has been termed as blended learning has variously encompassed several ideas about it, making it more difficult to define (NEAL & MILLER, 2005). A number of scholars use a very expansive definition of learning, and call it various versions of learning distributed techniques that are accepted as an official addition to conventional face-to-to-face training. E-learning has simplified the act of education, no matter what kind of a profession an individual is involved in. Electronic learning is efficient and strong because it breaks down complex information into simple terms, the concept is easily understood. It contributes to improved learning and comprehension and instruction for the learners (Stern, 2020).

#### 3.4.3. *E-Learning as a Self-Learning Mechanism*

E-Learning as a Self-Learning Mechanism. Referring to (Sile'n & Uhlin, 2008), students learning to use what they already know and what they already know to explore different problems on their own are important in problem-based learning and more broadly student-centered learning. Self-directed learning has generally been thought to mean the development of own capacity for independent learning, so it has been taken for granted, for instance to research and expose the intriguing possibilities and motivations, this paper seeks to bring forward and improve understanding of individuals' deeply meaningful possibilities and personal rewards. The mechanism of independent learning is as well as the need for teachers to partake in it must be understood as a priority when it comes to attaining self-directedness, and so teachers must become involved in it (Towle & Cottrell, 1996).

Referring to the written by (Henschke & Henschke, 2016) the second definition of self-learning includes taking initiative to diagnose one's own needs, formulating one's own objectives, defining and reviewing tools for learning, and then critically evaluating one's achievements, which is also referred to as "Defining one's necessities, developing training and creating goals, obtaining resources, then evaluating and assessing one's efficacy, as well as an alternative term for the achievement process is common to individuals who study in themselves (or with no assistance from others).

#### 3.4.4. *Teacher and Student Knowledge on E-learning*

According to (The Economic Times, 2021), when education is performed using services like this, it's formalized but with the help of electronic tools is referred to as e-learning. Online learning has proven to be ideal in private sector training programs where the trainees are given access to classes or webinars while they are working from the office, or from various locations around the globe by different corporations and workers will simultaneously be given the education to develop skills when interacting face-to-to-face in person. The use of E-learning methods in school education is a clear indicator of where education is heading, as opposed to schools that are stuck with the conventional method. E-learning is offered to students the ability to study from any location where they have a secure internet connection. It enables them to perform their studies in any context that works for themselves. Additionally, this also makes it possible for students to arrange their schedules more efficiently (The Economic Times, 2021).

To stand out from the crowd and get students' attention, teachers have to be imaginative and flexible on a daily basis seeking online tools, new and innovative solutions to keep educators constantly challenged and open-source: overcoming educational blockages for the education providers, an alternative means of continuing their education is e-learning platforms that can be used to help them develop their knowledge and abilities (Balogh, 2014).

#### 3.4.5. *Teacher-Student Relationship*

The teacher-student relationship is known as the academic connection among students and teachers an individual studying in an academic facility an educator is someone who has a job that involves instructing (Oreshkina & Greenberg, 2020). By taking advantage of the various ways of participation, students' different personalities, people are able to engage on interactive channels just as they do. The use of communities of practice offers students more opportunities and avenues for positive engagement such as bulletin boards and forums helps generate meaningful experiences for the teachers and other students. Referring to (Lai & Xue, 2012), Online education is enabling and enhancing an egalitarian classroom organization which encourages an accessible and interdependent teacher-student relationship that emphasizes the use of leader-teacher and student-centered interactions. emotional unavailability when offering a relevant and efficient training that cannot be provided in traditional classroom settings, online education often has a number of weaknesses that present difficulties when applied to students, specifically, due to their lack of emotional presence to build online education, we must make some conclusions about the learning model and try to create a closer and more intimate relationship between students and teachers. Students and teachers should be encouraged to participate, while on the other hand, incorporating more emotional elements will help to incite students to involvement (Lai & Xue, 2012).

### 3.4.6. COVID-19

The 2019–20 coronavirus disease is an ongoing pandemic of the novel coronavirus disease 2019 also known as COVID-19 affected by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (WHO, 2020).

### 3.5. Sampling Procedure

This study covers 315 participations (students) including 15 secondary school classes and 41 teachers in Vidyaraja Maha Vidyalaya at Hokandara. The sampling procedure would be conducted through quantitative research methods. This procedure is expected to discover the objectives of the research question.

### 3.6. Sampling Methods

The sample will be based on a non-probability sampling procedure, which will be made by using judgments without regard to the notion of what is convenient or suitable. The questionnaire is distributed to the teachers and students of the Vidyaraja Hokandara, as researcher wishes to get responses from 315 pupils who would like to take part in the research and the questionnaires will be used to do background research for a study of adolescent/secondary school students for the purpose of preparing a treatment that will then be used for expanding their prior and future knowledge of the existing online environment.

### 3.7. Data Collection Method

There is also primary research for this thesis, using statistical tools, which looks at the researcher's personal views as a starting points for which to explore data for the theory. Questionnaires can be used to collect data that is impartial and unstructured. The compilation instrument will be prepared by using a surveys as a reference. The questionnaires are to be used to discover the determining whether or not expanding the factory will help the factory stay competitive will be determined and set out. How does the introduction of new learning methods have on students' academic awareness and their growth as a teacher? The introduction of online learning has a direct influence on their academic abilities and the values as well as a multiplicative effect on their acquisition of new knowledge.

Teachers and students have two separate sets of questionnaires, one which are geared toward professional growth and advancement and the other towards program completion. so a number of questions will be set out for the survey, and these questions will be distributed in different locations in the research area in order to allow everyone in the group the opportunity to answer (refer Annexure 1). Knowledge regarding respondents is taken into consideration, ethical issues regarding confidentiality of personal data is in relation to how it is improved. The information supplied by the respondents is exclusively for academic purposes, and has no intended use other than that of being analyzed. To broaden this further, data gathered by the supervisors and auditors could also be accessed only by the examiners.

### 3.8. Developing the Questionnaire

As previously stated, primary data was chosen in order to collect sufficient information in order to investigate the factors highlighted in the conceptual framework, which would aid in eliciting the necessary responses to meet the research's objectives. There will be no involvement of a third party in the data collection process. The data collection instrument will be two separate questionnaires that will be distributed to teachers and students at Vidyaraja Maha Vidyalaya in Hokandara. As previously mentioned, two surveys for teachers and students at Vidyaraja Maha Vidyalaya in Hokandara will be planned. Prior to circulating the questionnaires online, permission from the relevant respondents will be obtained orally. Teachers and students from Vidyaraja Maha Vidyalaya in Hokandara were chosen for the survey in order to learn more about the real effects of online learning in Sri Lanka's secondary education system.

### 3.9. Data Analysis

The data collected from the respondents, as well as data collected from previous researches and useful articles, will be considered in the data analysis section, which will be interpreted using tables, graphs, and charts wherever possible to ensure that the data collected makes sense with the data obtained from previous researches and useful articles. In addition, survey responses will be presented in the form of charts and graphs so that the exact responses given by the respondents can be interpreted. As a result, the data instrument chosen will eventually provide a clear understanding as well as aid in identifying the key factors for the previously described research issue. The qualitative nature of the study necessitates the use of thematic analysis. This would draw attention to the critical recording patterns that must be identified in order to solve the research issue. By choosing thematic analysis, the data will be analyzed based on the key behaviors as well as the respondents' related response patterns, which are derived from the reasons listed in the conceptual framework.

## IV. DATA PRESENTATION AND ANALYSIS

### 4.1. Introduction

One of the most critical aspects of the research report is data presentation and interpretation (chapter 4). This chapter will concentrate on the elements that influence the secondary online education sector in Sri Lanka's pre- and prior academic knowledge as a result of Covid-19. In efforts to provide and alternatives to the research issue and research question that was initially carried out, analysis and explanation of the main results are considered.

### 4.2. Data Presentation

To determine the extent of pre the and post-school education sector's influences in Sri Lanka, five variables have been investigated separately to address various challenges: various forms of technology accessibility, virtual learning as a means of enhancing self-study mechanisms, virtual training is

applied to this sector, an exploration of information within the school education system, the significance of these aspects of teacher and student interaction, and the reliability of these knowledge systems. Furthermore, the necessary data to continue the research study has been chosen using primary data, obtained by conducting surveys and distributing questionnaires. As previously mentioned, these are online surveys generated using Google Forms and distributed via email. As previously mentioned, teachers and students at Hokandara-Vidyalaya Maha Vidyalaya will be the respondents. Furthermore, the data collected from the respondents was provided in the form of graphs and maps, and a personal study was conducted to further investigate the research issue.

### 4.3. Data Analysis

The organization of these thematic research practices to identify causes was listed above as well as being important in the aforementioned method of research, which began with data collection not only do thoughts and ideas and views of the respondents get included in each and every aspect that has been discovered, but even their ideas and opinions get reproduced in full according to a logical structure. More importantly, answers are shown as a factual evidence for this assertion and the response from the two questionnaires are represented under each heading.

#### 4.3.1. Participant Age Group – Students

Participants involve students and their ages categories are as follows:



Majority of the participants tend to be between the ages of 11 to 14 years with a percentage of 44% and 15 to 19 years representing 39%, 6-10 years with 17%.

#### 4.3.2. Teacher’s Experience



According to the above graph most of the teachers who participated in the survey had more than 13 years of experience presenting 34% of the total participants. Teachers with 1-3 years of experience accounts for 26%, 4-6 years of teaching experience accounts for 23%, 7-9 years with 14%.

#### 4.3.3. Online Learning

Taking the overall concept of online learning is a factor which affects both students and teachers and the most significant component in the online learning platform. Under online learning the researcher has given different types of questions to the participants to understand the aspects of online learning.

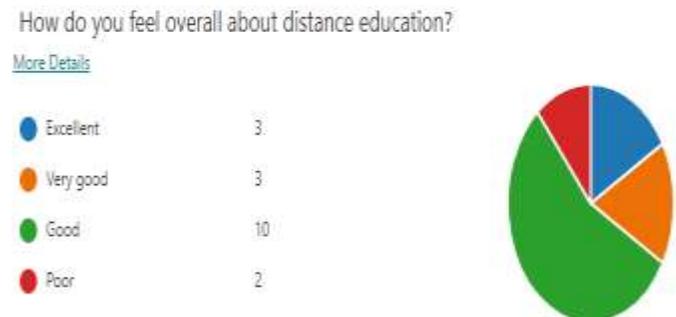
##### 1. How do you overall feel about distance education?

Teachers



According to the above chart, out of 35 respondents, the majority of the respondents (54%) tend to have a neutral feeling towards online or distance learning. 31% of the respondents tends to have a positive outlook on the novel emerging platform across the country. 11% of the respondents have an excellent feeling towards the online learning platforms and lastly minor respondents from the group of 3% of the teachers tend to have unsatisfactory feelings towards online learning.

Students



The majority of the students tend to have a favourable response towards the overall distance learning. In other words, 56% of the students respond as good, 17% of the students respond as very good and good each. However, 11% of the respondents are not satisfied with the novel learning platform at school.

## 2. How Effective Has Remote Learning Been for You?

### Student

How effective has remote learning been for you?

[More Details](#)



According to the above chart, respondents (students) tends to be neutral about the new learning platform, indicating 56% out of the total respondents. Very ineffective totaled to be 22% and very effective respondents totaled to be 22%.

### Teachers

## 3. How Effective has Remote Learning been for you?

ID †	Name	Responses
1	anonymous	Average
2	anonymous	Not much
3	anonymous	Up to some extent as we don't have any other solution
4	anonymous	It's difficult
5	anonymous	Not effective
6	anonymous	According to the covid pandemic situation, it is highly effective otherwise children will lose their knowledge
7	anonymous	Good
8	anonymous	It's very feasible for me
9	anonymous	It made drastic impact on all teachers to take a paradigm shift from traditional to modern with the support of technology. It is somewhat effective
10	anonymous	Not much effective
11	anonymous	Average
12	anonymous	Good
13	anonymous	Average
14	anonymous	Somewhat ok
15	anonymous	Less effective
16	anonymous	Difficult but sometimes it's useful
17	anonymous	During pandemic situation it helps me to cover my syllabus to a certain amount.
18	anonymous	Poor effective
19	anonymous	Not much
20	anonymous	Physical teaching is good
21	anonymous	Poor
22	anonymous	Much better
23	anonymous	Not much
24	anonymous	I can use a variety of tools to impart knowledge so that they grasp well
25	anonymous	Extraordinary
26	anonymous	Very critical
27	anonymous	Not effective
28	anonymous	Unprepared and rapid move to online learning will result poor expectation.
29	anonymous	Good
30	anonymous	Fair
31	anonymous	Though we teach can not find out their real level as primary students, parents also support in assessment process.
32	anonymous	For some lessons it is very effective
33	anonymous	Very good
34	anonymous	Very good

The above table represents the respondents answers for effectiveness of remote learning. Moreover, out of the 34 respondents only 16% agrees to have sound effectiveness on teaching, whereas 26% provided negative feedback. The majority of totaling up to 58% have given neutral responses not indicating a positive or a negative outcome indicating its effectiveness.

## 4. Do you prefer online teaching or in class teaching?

### Teacher

1	anonymous	Class room
2	anonymous	In Class teaching
3	anonymous	No
4	anonymous	In class teaching but in this situation we have to do online teaching
5	anonymous	In class teaching
6	anonymous	In-class teaching
7	anonymous	In class teaching
8	anonymous	Online teaching
9	anonymous	Both, a hybrid system
10	anonymous	In class teaching
11	anonymous	Dual approach
12	anonymous	In class teaching
13	anonymous	In class
14	anonymous	In class teaching
15	anonymous	In-class teaching
16	anonymous	Class teaching
17	anonymous	If there is no pandemic situation, I would like in- class teaching
18	anonymous	Yes
19	anonymous	On-line
20	anonymous	In class teaching
21	anonymous	Class teaching
22	anonymous	Class teaching
23	anonymous	In class teaching
24	anonymous	In-class learning
25	anonymous	excellent
26	anonymous	In class teaching
27	anonymous	In class
28	anonymous	Always good in class teaching. T ways classroom teaching is better than online education
29	anonymous	Yes
30	anonymous	In class teaching
31	anonymous	Blended method
32	anonymous	I prefer in class teaching
33	anonymous	Online
34	anonymous	Online

According to the above table respondents have replied for the preference of online teaching and in-class teaching as follows: 18% of the teachers prefer online teaching, 17% prefer dual teaching methods and 65% of the teachers prefer in-class teaching.

5. Do you Prefer online class learning or in-class learning?

Students

Do you prefer online learning or in - class learning?

[View Details](#)



Preference of learning in students were much given to a neutral answer where most of the students were unable respond indicating either online or in-class learning showing a percentage of 39%. Conversely, 33% of the students prefer online learning and 28% of the total respondents preferred in-class learning.

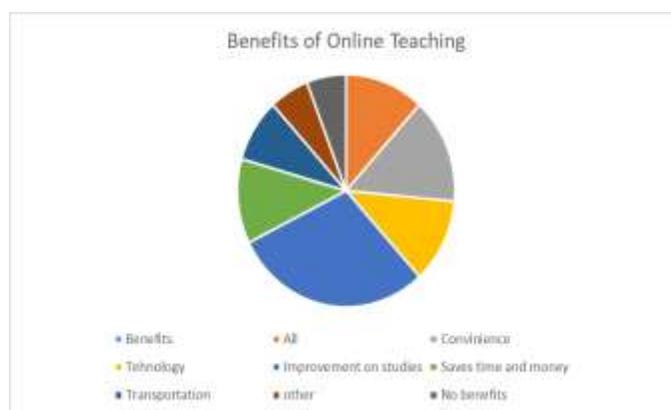
6. What are the Benefits of Online Teaching?

Teacher

ID ↑	Name	Responses
1	anonymous	Student will learn to how to use technology
2	anonymous	Can control hygiene in situations like Covid19
3	anonymous	No shoe leather cost that we have learnt in Economics other than that there is no benefit
4	anonymous	No benefits
5	anonymous	Can assign students with continuous home work
6	anonymous	Children will be talented in new technology
7	anonymous	Can teach from what ever the place
8	anonymous	Traveling time and cost can be minimised, effective teaching ng concepts can be implemented
9	anonymous	Save time, resource availability, safe
10	anonymous	Ability to share videos and graphs very clearly and easily
11	anonymous	Save travelling time
12	anonymous	Can do freely, no transport problem
13	anonymous	Ability to connect remotely
14	anonymous	Explaining is easier by showing pictures via google
15	anonymous	Time saving
16	anonymous	We can keep children's attention to the studies
17	anonymous	It saves my traveling time and expenses. In a pandemic situation it helps to continue education process. It synchronise the advantages of traditional learning while minimizing the disadvantages. It cater the students unique learning model (slow, average etc..)
18	anonymous	We can use audio-visual material for learning process
19	anonymous	Attention and real time feedback
20	anonymous	We can use video for that some lessons
21	anonymous	Easy to pay attention on each other
22	anonymous	Protect from covid, can display real pictures, can include video clips regarding lessons
23	anonymous	Not Much

24	anonymous	It is convenient to teach a large group of students, enables to use technology in a wider way.
25	anonymous	Being aware
26	anonymous	The time is manage. The student learning how to use modern technology
27	anonymous	Convenience, Cost reduction
28	anonymous	There are many things like Time and Location Flexibility, More Teaching Opportunities, Convenient ... etc.
29	anonymous	Comfortability
30	anonymous	Traveling time is saved
31	anonymous	Can use teaching aids such as videos, pictures & show real process for science subject.
32	anonymous	The student's involvement is very high to gather information
33	anonymous	Distance learning
34	anonymous	Distance

Referring to the above table, many teachers stated about saving time and money, some respondents indicated how it can affect studies of students and ability to be familiar learning using new technology. The below chart illustrates a summary of the above entire table. The chart below provides a summary of the benefits indicating the percentage involved.



Benefits	Frequency	Percentage (%)
All	4	12
Convenience	5	15
Technology	4	12
Improvement on studies	10	29
Saves time and money	4	12
Reduce Transportation	3	9
other	2	6
No benefits	2	5

The above table and chart illustrates a summary of online teaching; it can be seen that 29% of the teachers' view "improvement on studies as a major benefit. Moving on, 15% of the teachers highlight "convenience as another benefit giving a total of 15%. Next, 12% of the teachers highlight that online education saves money and time, another 12% of the teachers focus on improvements in technology which enables students to learn better than in classrooms. 9% of the teachers state not needing to travel tends to be another significant advantage. 6% of the teachers have stated about other benefits such as has the ability to other work and similar advantages. Similarly, 12% of the teachers have found all above

mentioned benefits. Conversely, 5% of the teachers have not seen any benefit on online learning.

4.3.4. *E- Learning in the Context of Sri Lankan Education*

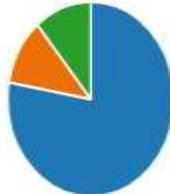
1. *Do you have adequate resources for distance learning?*

Students

Do you have adequate resources for distance learning?

[More Details](#)

Yes	14
No	2
Maybe	2



According to the above chart, 78% of the students stated about having adequate resources for online learning. 11% of the students seems to be unsure of having sufficient materials or resources to study online. On the contrary, 11% of the students indicated not having sufficient resources for online studies.

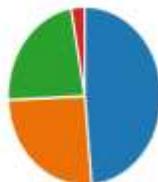
2. *How Much Time Do You Spend Each Day On an Average On Distance Education?*

Teachers

How much time do you spend each day on an average on distance education?

[More Details](#)

1-3 hours	17
3-5 hours	9
5-7 hours	8
10+ hours	1



According to the above illustration, 49% of the teachers teach online for 1-3 hours, about 36% percent of the teacher spend 3-5 hours, 23% of the teachers spend time between 5-7 hours and 3% of the teachers spend more than 10 hours on teaching online to students.

Students

How much time do you spend each day on an average on distance education?

[More Details](#)

1-3 hours	4
3-5 hours	10
5-7 hours	4
10+ hours	0



According to the above chart, 56% of the students spend 3-5 hours in learning online, 22% of students spend 1-3 hours

learning online, another 22% spending 5-7 hours online and none spending more than 10 hours online learning.

3. *How Helpful Your School Has Been in Offering You the Resources to Learn from Home?*

Students

How helpful your School has been in offering you the resources to learn from home?

[More Details](#)

Excellent	5
Good	6
Average	6
Poor	1



Referring to the graph above, 33% of the students stated a favourable response by stating the schools provided sound resources to learn from home, 33% of the students stated an average response. Moreover, 28% of the students stated as 'excellent' and 6% stated 'poor'.

4.3.5. *Access to Technology*

1. *Do you have adequate resources for Distance Learning?*

Teachers

Do you have adequate resources for distance learning?

[More Details](#)

Yes	24
No	5
Maybe	6



According to the above chart, 69% of the teachers state about having adequate resources for online learning. On the other hand, 17% of the teachers are unsure about the resources required for online learning and 14% of the teachers stated not having sufficient resources for online learning.

2. *Do you have access to a device for learning online?*

Teachers

Do you have access to a device for learning online?

[More Details](#)

Yes	30
No	2
Maybe	3



According to the above chart, 86% of the teachers have devices to teach online, 9% of the teachers are unsure about having the right device suitable for teaching. On the other

hand, 6% of the teachers lacks proper devices suitable for online teaching.

**Students**

Do you have adequate resources for distance learning?

[More Details](#)



Referring to the above chart, 78% of the students stated having proper resources for online learning, where 11% lacked proper resources and another 11% where unsure about having proper or adequate resources.

**3. What Device Do You Use for Distance Learning?**

**Teachers**

What device do you use for distance learning?

[More Details](#)



Conferring to the above illustration, it can be seen that 77% of the respondents mainly use laptops and 17% use smartphones, 3% use desktops and laptops each.

**Students**

What device do you use for online learning?

[More Details](#)



According to the above diagram, majority of the students learn through laptops as it shows 56% out of the total respondents. Moreover, 39% of the students use smartphones for online learning and 6% use tablets. There are no students using a desktop computer for learning.

**4.3.6. E-Learning as a Self-Learning Mechanism**

**1. How Effective Has Remote Learning Been for You?**

**Students**

How effective has remote learning been for you?

[More Details](#)



According to the above graph, majority of the responses states that remote learning was somewhat effective. In other words, 56% of the respondents indicated that it did not affect much. 22% of the respondents stated as very effective and another 22% of the respondents stated very ineffective.

**2. How Effective Has Remote Teaching Been for You?**

**Teachers**



According to the above pie chart, majority of the teachers stated that the effectiveness of remote teaching tends to be 'average' and 'not effective'. In other words, around 29% of the teachers stated an average effectiveness and another nearly 29% stated not effective at all. Conversely, 26% of the teachers rated their effectiveness as 'excellent' and 15% of the respondents stated effectiveness as 'fair'.

**3. How Has Distance Learning Affected Your Routine?**



According to the above graph, majority of the teacher's routine has been negatively affected. In other words, 24% of

the teachers stated that distance learning has affected their routine in a negative way. Similarly, 24% of the teachers have stated that the distance learning has affected their routine in a very negative manner. Examples such as; “Stressful, less sleep and busy are stated.

4.3.7. *Teacher and Student Knowledge on E-Learning Systems*

1. *Students’ Participation in Online Learning*

Teachers

I would describe my students' participation in online learning as,

[More Details](#)

Highly dedicated	6
Somewhat dedicated	23
Not dedicated	4
Unsure	2



Conferring to the above pie chart, most of the participants have stated that the dedication of students on online learning platforms as ‘somewhat dedicated’. In other words, this shows an average result in student learning through online platforms as 66% of the teachers or respondents agree to the statement. Moving on, 17% of the teachers stated student dedication regarding online learning as ‘highly dedicated’. 11% of the teachers cannot decide student dedication on learning online and 6% of the respondents seems to be unsure to comment on the statement.

4.3.8. *Teacher-Student Relationship*

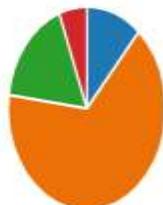
1. *The Amount of Work Given to Students*

Teachers

The amount of work my student has been assigned to complete each week is,

[More Details](#)

Too much	4
Just right	23
Too little	6
Unsure	2



According to the above graph, majority of the respondents the amount of work my students has been assigned to complete each week is ‘just right’. In other words, 66% of the respondents stated just right. Moreover, 17% of the respondents states the amount of work given is ‘too little’ and 11% of the respondents states ‘too much’. 6% of the respondents are unsure about the amount of work given to the students.

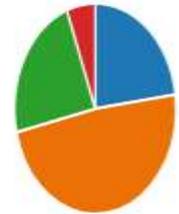
2. *Student Support Given by Teachers.*

Teachers

The support my students' are receiving from their teacher via online learning is,

[More Details](#)

Excellent	8
Good	17
Fair	8
Poor	2



Referring to the above pie chart, majority of the respondents believe that they give a sound support to the students. In other words, 49% of the respondents agree on giving a sound support to the students. Similarly, 23% of the respondents believe that they give an excellent support to the students and another 22% of the respondents believe they give a fair support to the students. Conversely, 6% of the respondents believe teachers provide a poor support to the students.

Students

How helpful your School has been in offering you the resources to learn from home?

[More Details](#)

Excellent	5
Good	6
Average	6
Poor	1



According to the above chart, 33% of the students stated a favourable response by stating the schools provided sound resources to learn from home, 33% of the students stated an average response. Moreover, 28% of the students stated as ‘excellent’ and 6% stated ‘poor’.

3. *Improvement of Student Performance*

Teachers



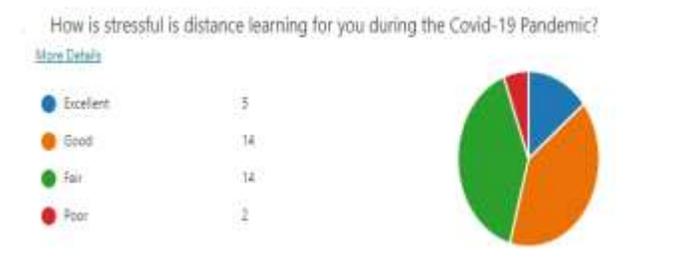
According to the above chart, most of the responses tend to be negative with regards to student performance. In other words, 26% of the respondents’ state students have ‘not improved’ at all. Similarly, 26% of respondents’ state less improvement in

student performance. 18% of the respondent's state that there is an average improvement in performance and 15% of the respondents stated a moderately improved performance in student learning. Conversely, 15% of the respondents state a high improvement in student performance.

#### 4.3.9. COVID -19

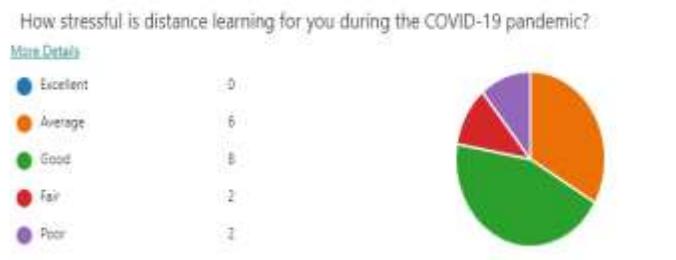
##### 1. Level of Stress with Regards to Distance Learning During The COVID-19 Pandemic

###### Teachers



According to the above mentioned chart, 40% of the respondents tend to be less-stressful and 40% of the respondents tend to be moderately stress-free. Conversely, 6% of the respondents were stated as being stressed and another 6% were much pleased to teach online during the pandemic.

###### Students



According to the pie chart below, majority of the students felt comfortable learning online during the COVID-19. In other words, 44% of the students stated 'good' and 33% stated 'average', none stated 'excellent'. 11% stated 'fair' and another 11% of respondents stated 'poor'.

#### 4.4. Key Findings

This section summarizes the main findings derived from the thematic review conducted to answer the research questions raised in the introduction chapter. When it comes to the reasons for the growth of the online secondary education sector in Sri Lanka, similar trends can be found in the responses given by the respondents. The key findings include access to technology, online learning, E-Learning in the Context of Sri Lankan Education, E-Learning as a Self-Learning Mechanism, Teacher and Student Knowledge on E-Learning Systems, Teacher- Student Relationship and COVID-19 are other concerned factors that highlighted most after the seven independent variables.

According to the conducted survey, most of the students and teachers have resources to online learning platforms and most of them access through laptops. Moreover, it lowers obstacles to learning content, embraces learners where they are in a variety of learning environments including needs, which gives educators a better understanding of the teaching environments they're developing. Through the survey, it found students are facilitated with technology for learning and only a minor proportion did not have access to online learning. Students are given a fair support on online learning platforms. However, there tends to be a problem with regards to the overall performance of the student in online learning. On the contrary, teachers believe a significant advantage of online learning is improvement on studies but these two factors tend to clash in reality. Moving on, majority of the teachers believe that they give a sound support to the students despite the performance of the students. The effectiveness of remote learning tends to be on an average level. This could be another clue to indicate insufficient performances level of students. Teachers prefer traditional classrooms rather than teaching online, as this could affect the overall performances of the student. As most of the students tend to be physically attending online lectures with their mind elsewhere. Moreover, the student in an online class does not have direct contact with the teacher. As a result, they can find it difficult to ask their online teacher questions because contact is sometimes impersonal. These courses, on the other hand, also include alternatives to live query resolution, such as online forums, emails, and chatrooms. Individuals who use these options can find it easier to get answers to their questions. Researchers concur that communicating with a teacher in person is the most effective method of learning because it is engaging and allows for two-way communication. Synchronous online courses would be more suitable for these individuals.

Many teachers stated about saving time and money, some respondents indicated how it can affect studies of students and ability to be familiar learning using new technology. Students on the contrary, tend to have a favourable response towards the overall distance learning.

Teachers believe student support is given but students tend to doubt the support the given by schools for online learning. This shows there is a communication gap between the student and the teacher which can ultimately have a negative impact on student performance.

The significant benefits of online learning tend to be convenience, improvement on studies, technology, saves money and time and reduce transportation costs.

## V. CONCLUSION

### 5.1. Introduction

In the final chapter, the researcher will synthesize the results of the entire study, including the conclusions. In this chapter, theories and empirical results that were discussed and checked will be listed. and so that others can benefit from this advice will be applied in similar circumstances to teachers and

students will be suggested for them as well, namely, suggestions will be offered to build on the improvements of online learning.

### 5.2. Summary of the Project

The Covid-19 Pandemic has posed, and continues to pose, a major threat to the world. A new Coronavirus (Covid-19) outbreak has been identified in China's Wuhan province. Several deaths and complications, such as pneumonia and acute respiratory distress syndrome, were recorded in December 2019. The virus quickly spread around the globe, prompting the World Health Organization to announce a pandemic on March 11, 2020. Sri Lanka reported the first case on January 27, 2020, in a Chinese tourist, and the second case on March 11, 2020, in a local. As in several other countries around the world, the Covid-19 pandemic forced Sri Lankan schools to close on March 13, 2020, and only partially reopened in June before closing for the year on October 5, 2020. Due to the Covid-19 outbreak's emergency, strict steps were taken to restrict human mobility. A nationwide curfew was imposed on, until further notice, along with a strict prohibition on inter-district travel. Colombo's three most populated districts, Kalutara and Gampaha, have been designated as high-risk areas. The Sri Lankan government declared a nationwide curfew and moderated travel restrictions. Schools will remain closed until mid-May, with online instruction continuing until further notice if not months, if not years. What happens when all that is studied in school is done online, and there is no longer a place to study? If the government agrees that online classes are the best choice, they should take measures to make them more widely available, so both students and teachers can save money. Online education, whether started at the beginning or over a long period of time, does not intensify the disparities that have already formed.

It clear that through the research seven independent variables are discovered. They are known as; access to technology, online learning, e-learning in the context of Sri Lankan education system, e-learning as a self-learning mechanism, teacher and student knowledge on e-learning systems, teacher-student relationship and COVID-19. The main objectives of the research were to what impact do online learning strategies have on students' academic knowledge and teachers' professional development? How is the teacher student relationship affected by the implementation of online learning? And How does implementation of online learning affect the students' academic skills and knowledge? Moreover, the findings of the study will be partially responsible for the benefit of students and education system of Sri Lanka with regards to remote learning. Moreover, the research will help the Ministry of Education, government, semi government and private schools to come up with strategies that mutually benefits both educators and learners due to COVID-19. Furthermore, this study discusses on significant factors such as what impact do online learning strategies have on students' academic knowledge and teachers' professional development, how is the teacher student

relationship affected by the implementation of online learning and how does implementation of online learning affect the students' academic skills and knowledge. This study covers 315 participations (students) including 15 secondary school classes and 41 teachers in Vidyaraja Maha Vidyalaya at Hokandara. The sampling procedure was conducted through qualitative research methods. This procedure discovered the objectives of the research question with support of the respondents of both teachers and students in Vidyaraja Maha Vidyalaya at Hokandara and the information retrieved benefits the overall secondary education sector of Sri Lanka.

Moving on to the key findings, the researcher discovered seven independent variables that affects the online education of the secondary education sector in Sri Lanka. The factors are access to technology, Access to Technology, E-Learning in the Context of Sri Lankan Education, E-Learning as a Self-Learning Mechanism, Teacher and Student Knowledge on E-Learning Systems, Teacher- Student Relationship and COVID-19.

### 5.3. Conclusion

As mentioned earlier, this study is carried out in order to identify the factors affecting online education in Sri Lanka and narrowed down to the secondary education sector. With the discovered factors, the researcher has recommended strategies to improve the overall performances of the students when learning online as a problem exists in student performances and effectiveness of studies.

### 5.4. Recommendations

Based on the key findings covered in the data presentation and analysis (Chapter 4), it can be identified that the main problem student performances and effectiveness of learning. Therefore, there are series of strategies which needs to be implemented to improve the overall performances and the effectiveness of student online learning. Any teacher who teaches online must participate in a conversation about acceptable and responsible online actions. Although students should have been taught about digital literacy and citizenship prior to COVID-19 and the transition to online learning, there is a need for a refresher. Students need a greater understanding of their digital footprint, how to effectively interact online, resources to use when engaging in digital environments, and techniques for when they feel insecure or unsafe online from all teachers, not just the librarian or technology teacher.

Teachers and the management of school are advised to create an effective approach, where learning efficiency is normally measured by the amount of money, time, and energy needed to achieve desired results. This means that if there are less costs and time commitments, the learning process will be strengthened. The goal here is to come up with a strategy that will boost both productivity and reliability.

To have a positive effect on the overall method of learning, this approach should be applied to every aspect of online education: curriculum, philosophy, implementation, teaching, management, technology, and institutional culture.

Moreover, courses empowered with videos can be another strategy to improve performances by empowering videos. Moving on, digital videos are extremely common, and integrating them into the eLearning process will give education a flexible and convenient twist. Images, as a result, can never be ignored as a valuable resource for teachers, students, and educational institutions. Learners will be able to hear and see the different ideas being taught and will interpret them in a similar way during daily experiences as a result of having videos. Furthermore, they aid in the learning process, especially in the case of complex topics that necessitate a high level of comprehension. The videos are an excellent resource that can be accessed at any time and from any place. Students with internet access can view and learn from a range of devices, including smartphones, tablets, and laptops.

Communication is the key to successful online education, and this field has seen significant advancements over time. In this age of networking, courses can make use of social media networks, e-mails, student chat groups, and other means of communication to enable students to connect with their classmates and teachers. Students' interest grows when they are able to explore course-related subjects, ask questions, and even compare their evaluation ratings, which fosters a healthy competitive spirit and makes them perform better every time.

Virtual Reality (VR) is a relatively new technology that has quickly swept through the world of eLearning. The primary motive for using virtual reality in education is to better understand how the human brain works. On average, the brain can recall 10% of what students learn, 20% of what they hear, and 90% of what they do or are stimulated. VR can be used in online learning in a variety of ways, including: Virtual reality can be a blessing in disguise for physically challenged students. They are able to experience the whole world through their headset, which has a positive effect on their learning process as well. VR courses have largely been based on history and science courses to date, but the fact remains that this technology can be applied to any theme or topic, providing limitless possibilities. Virtual reality allows students to visit areas that are physically inaccessible or far away, giving them a sense of presence. These classes have the ability to be a good competitor to conventional classrooms. Students now have the option of training at their own pace while learning online, but the lesson plan is likely to remain traditional. Instead of sticking to the old guidelines, courses should experiment with flexible lesson plans tailored to the individual needs of students. They won't have to struggle with a single topic for hours, but instead will be able to break things down into manageable chunks with focused study time on difficult concepts. Regardless of how advanced or unique an eLearning system is, it should always be backed by a team of competent and skilled teachers who design courses based on the needs of the students.

A disciplined schedule, well-thought curriculum, and associated elements constitute such a course, making the learning process as smooth as possible. Even when switching to online education, having a qualified teacher on hand is

essential. We know that, like traditional diploma and professional courses, e-courses assess students' knowledge through assessments, and that a student is awarded a certificate of recognition after passing these tests. But wait, what if someone doesn't get the desired result? This is where result-oriented assessments have a major role to play. This basically analyzes the fields where students were not able to score and then provides simple step-by-step learning programs followed by tests to help them do better.

Most of the online courses do lack result-oriented assessments, due to which if a student does not score well, they would have to repeat the course altogether and go through same curriculum and chances are they would end up with similar scores, such a cycle can be broken with the help of result-based assessments.

The essence of state-of-art eLearning system is not only based on the modules but the amount of money that you are willing to spend on making it worthwhile. If you lack the required finances for developing an exceptional online course, then a good practice would be to seek help from reliable online lenders. This is because the pedagogy of online education is similar to giants of the internet and must be treated as a core business, where you need appropriate budgeting and potential sources to fulfil these demands. Every innovative methodology comes with a price; and for these loanable funds, it can be a great option to translate methods into action. Therefore, these strategies are recommended when planning to create a successful online class. Thus, teachers and the management of the schools including the government of Sri Lanka is advised to reflect the above-mentioned practices and notice the difference it can create to the learning process.

##### 5.5. *Limitations*

Moving on to the research's limitations, this study is focused on primary data collected from students and teachers at Hokandara Vidyaraja Maha Vidyalaya, an educational institution. While of respondent has a fair opinion about the effects of online learning as a result of COVID-19, these points cannot be generalized due to the convenient sampling approach that was used.

Another important consideration was time; respondents wanted to know that the survey would take no longer than 10 minutes, so the time taken to answer each respondent's questions had to be reduced while still ensuring that all facets of the conceptual structure were protected.

There were some respondents who gave incorrect responses, making the analysis less reliable.

##### 5.6. *Suggestions*

Regardless of the limitations, it was discovered during the study that research can be broadened by considering the factors that inspire student learning and effectiveness. The research should be expanded to include tertiary education in order to better understand how successful learning can be enhanced.

## ACKNOWLEDGEMENT

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Appendix -1

*Student Questionnaire*

Traditional learning Vs. Online Learning on Education in Sri Lanka - Student Questionnaire

We are carrying out an evaluation of traditional learning vs online learning education, to see the factors that impact learning of children. Thank you for taking the time to fill in this questionnaire; it should only take 10 minutes. Please submit the filled questionnaire via google forms. Your answers will be treated with complete confidentiality and will be treated as anonymous.

1. Age Group (Years)
  - A. 6-10
  - B. 11-14
  - C. 15-19
2. How do you feel overall about distance education?
  - A. Excellent
  - B. Very good
  - C. Good
  - D. Poor
3. Do you have access to online learning
  - A. Yes
  - B. No
  - C. Maybe
4. Do you have adequate resources for distance learning?
  - A. Yes
  - B. No
  - C. Maybe
5. How much time do you spend each day on an average on distance education?
  - A. 1-3 hours
  - B. 3-5 hours
  - C. 5-7 hours
  - D. 10+ hours
6. How effective has remote learning been for you?
  - A. Very effective
  - B. Somewhat effective
  - C. Very ineffective
7. How helpful your School has been in offering you the resources to learn from home?
  - A. Excellent
  - B. Good
  - C. Average
  - D. Poor

8. How stressful is distance learning for you during the COVID-19 pandemic?

- A. Excellent
- B. Average
- C. Good
- D. Fair
- E. Poor

9. What device do you use for online learning?

- A. Laptop
- B. Desktop
- C. Tablet
- D. Smartphone

10. Do you prefer online learning or in - class learning?

- A. Yes
- B. No
- C. Maybe

Source: [https://forms.office.com/Pages/ResponsePage.aspx?id=nmO-uuzpZEyDEfpp5TcDNZGvm5m8JNtDuZ24k5\\_hMhVUMjAyS01SN0g4SkNFUk5HREFZQUZTVkhCUS4u](https://forms.office.com/Pages/ResponsePage.aspx?id=nmO-uuzpZEyDEfpp5TcDNZGvm5m8JNtDuZ24k5_hMhVUMjAyS01SN0g4SkNFUk5HREFZQUZTVkhCUS4u)

## Appendix – 2

### *Teacher Questionnaire*

#### Traditional learning Vs Online Learning on Education in Sri Lanka - Teacher's Questionnaire

We are carrying out an evaluation of traditional learning vs online learning education, to see the factors that impact learning of children. Thank you for taking the time to fill in this questionnaire; it should only take 10 minutes. Please submit the filled questionnaire via google forms. Your answers will be treated with complete confidentiality and will be treated as anonymous.

1. Teacher's Experience in the education industry

- A. 1-3 years
- B. 4-6 years
- C. 7-9 years
- D. 10-12 years
- E. Above 13 years

2. How do you feel overall about distance education?

- A. Excellent
- B. Good
- C. Average
- D. Poor

3. Do you have adequate resources for distance learning?

- A. Yes
- B. No
- C. Maybe

4. Do you have access to a device for learning online?
  - A. Yes
  - B. No
  - C. Maybe
5. What device do you use for distance learning?
  - A. Laptop
  - B. Desktop
  - C. Tablet
  - D. Smartphone
6. How much time do you spend each day on an average on distance education?
  - A. 1-3 hours
  - B. 3-5 hours
  - C. 5-7 hours
  - D. 10+ hours
7. I would describe my students' participation in online learning as,
  - A. Highly dedicated
  - B. Somewhat dedicated
  - C. Not dedicated
  - D. Unsure
8. The amount of work my student has been assigned to complete each week is,
  - A. Too much
  - B. Just right
  - C. Too little
  - D. Unsure
9. The support my students' are receiving from their teacher via online learning is,
  - A. Excellent
  - B. Good
  - C. Fair
  - D. Poor
10. How is stressful is distance learning for you during the Covid-19 Pandemic?
  - A. Excellent
  - B. Good
  - C. Fair
  - D. Poor
11. Do you think students' performance have improved or not?

Answer

12. How effective has remote teaching been for you?

Answer

13. Do you prefer online teaching or in-class teaching?

Answer

14. What are the benefits of online teaching?

Answer

15. How has distance learning affected your routine?

Answer

Source: [https://forms.office.com/Pages/ResponsePage.aspx?id=nmO-uuzpZEyDEfpp5TcDNZGvm5m8JNtDuZ24k5\\_hMhVUMUMzRFgxUkJKQjdRMTBZN1NDM1ZIRUc0My4u](https://forms.office.com/Pages/ResponsePage.aspx?id=nmO-uuzpZEyDEfpp5TcDNZGvm5m8JNtDuZ24k5_hMhVUMUMzRFgxUkJKQjdRMTBZN1NDM1ZIRUc0My4u)