

## Identifying the Factors Influencing Online Education of School Students in the Colombo District

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### Introduction

With the rapid growth of information and communication technologies, the 21st century can be described as an era in which the universe has become one village. As a result, most countries worldwide tend towards online methods in their education sector. According to the last few years in Sri Lanka, it can be noticed that the children are more attracted to information technology tools than adults. Even though, universities or higher education institutions often use online platforms for their education, it was not seen until the end of 2019, when school students tend to have online education. Even though, many researchers in other countries have focused on online education in universities and schools (Almekhlafy, Brish, Chandra, and Joshi, 2020), researchers have not paid much attention to online school education in Sri Lanka. However, due to the Covid-19 outbreak, Sri Lankan schools have been trending toward online education since 2020. The face-to-face classroom education system has been shifting towards an online education system for the last two years due to the Covid-19 pandemic, which has spread worldwide. However, Sri Lankan students have newly experienced online education, and those experiences vary from region to region in the country due to the teacher's lack of devices, signal variation and awareness level regarding online education. Therefore, it is very important to discuss the online education of Sri Lankan students and the factors that affect online education.

### Research Problem/s, Objective/s

Since the beginning of the year 2020, many countries have suffered from the Covid-19 pandemic. Sri Lanka also experienced a similar situation and struggled to do the usual activities properly. During the lockdown period of the country's last two years, all education institutes, including schools, did not properly function physically. Most of the schools switched to online education as an alternative. However, Sri Lankan school system faced many difficulties due to the lack of such an experience. It was a debatable topic in the country due to many reasons including, lack of devices to join the online class, lack of awareness about the technology, signal issues, and poverty of the people who still live in a developing country. However, despite difficulties, most students and teachers specializing in Colombo district gradually turned to online education. Since student school education is an investment in the country's sustainable development, the factors which affect the online education of school students in Sri Lanka should be considered. Therefore, the objectives of this study were to identify the influence of social, technical, and communication factors on the usage of online education and to suggest some solutions for difficulties faced, when using online education.

### Materials and Methods

The target population of the study was students, following the Advanced Level Examination in Arts and Commerce streams in the years 2020 and 2021. 312 students studying at advanced level classes in three Secretarial Divisions, Padukka, Hanwella, and Homagama, in Colombo district, was selected as the sample. A structured questionnaire was utilized as the sampling instrument for data collection, and quantitative data were used. Also, the multistage cluster sampling method was applied to select the participant, and private tuition classes were taken as clusters. Multiple regression analysis was carried out to determine the factors affecting online education.

### Results and Discussion

The percentage of the ratio between the time duration of conducting online classes and the time duration participated by students was used as the dependent variable. Social factor with classmates, social factor

with the teacher, communication factor, and technical factor were identified as the independent variables in the analysis.

Based on the analyzed results, it was identified that social, communication, and technical factors significantly affect the online education of school students in Sri Lanka.

**Table 1:** Results of the Regression Analysis

Variables	Coefficient	Stand. deviation	t statistics	Probability
The social factor with classmates	0.3554	0.0341	10.437	0.0000
The social factor with teacher	0.3609	0.0349	10.352	0.0000
Communication factor	0.3257	0.0318	10.226	0.0000
Technical factor	0.2935	0.0307	9.5671	0.0000
Constant	-17.432	2.4405	-7.1428	0.0000
R <sup>2</sup>	0.7664	F statistics		251.858
Adjusted R <sup>2</sup>	0.7634	Prob. Value		0.0000

There are positive relationships between the time spent on online education per week by students and the factors, social factor among classmates, social factor among teachers and students, communication factor, and the technical factor. The model explains 76% of the variation. All the assumptions are satisfied at the 0.05 level of significance.

### Conclusions and Recommendations

According to the analysis, the most influential factor was the social factor with the teachers. This impels that the teachers based on online education significantly contributed to the student's time spent on online education. It is better to enhance the facility for teachers to develop students' online education. It is better to hold more awareness programs concerning online education and its benefits for teachers and students. Also, it is suggested to implement a Learning Management System for this community. At the same time, this study opens an opportunity to determine barriers that students and teachers encounter in online education while reducing time consumption and cost for the teaching and learning process with attractiveness and adequacy.

**Keywords:** Covid-19, Online education, Regression analysis, School students, Social factor

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