

THE EFFECT OF COVID-19 IN 501-MULLERIYAWA, NORTH DIVISION

"Isn't the student's educational knowledge level improved during covid -19 pandemic period in Sri Lanka at 501- Mulleriyawa, North division?"

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THE EFFECT OF COVID-19 ON MY GN DIVISION

1. Introduction

1.1Background

I suppose to do a research on my GN division which is 501- Mulleriyawa, North. It is located at Western province, Colombo district in Sri Lanka. Sinhaleese is the main religion and there are some Muslims and few Tamils are living there. It is an urban area and it is an industrial zone because there are

- International Tea factories (Basilur, Green horizon, Amazon, Heritage teas, Uniworld teas, and etc...)
- Polydime company(it is a polythine bags printing company),
- American & Efrid Lanka PVT LTD (Strings company),
- soap companies,
- S & K company(construction company),
- Gamini Engineering(Engineering company),
- Thusitha company(brick company),
- Plastic product making companies.
- Garments (Shirani Garment and etc..)

Companies located in my GN division.

There are many boardims in our GN division because there are many people come and stay as employees where which I mentioned companies, Therefore lot of shops, food centers ,and so many facilities are having in my GN division.

501- Mulleriyawa, North division is nearly to the Mulleriyawa hospital, IDH hospital and Kelani temple. Those things may be caused to implement the covid -19 in my division.

There are 1426 famlies, 2184 females, 2255 males and 4439 total population living in my division.

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus.

Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention

n. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. Anyone can get sick with COVID-19 and become seriously ill or die at any age.

658,493 Total Confirmed Cases

> 17,312 Active Cases

296 Daily New Cases

> 624,745 Recovered

> > **16,436** Deaths

Sri Lanka has many curfew and lockdown periods since 2020-2022.Below link shows the details of lockdown periods.

(https://global-monitoring.com/gm/page/events/epidemic-0002015.fTDtGCxti2qN.html?lang=en#:~:text=Update%202020%2D05%2D26%3A,distancing%20regulations%20remain%20in%20force.)

1.2. Objectives of the study

Schools were closed since 2020 until 2022 February. Therefore more students had gone diverge from the studies. My study is to observe the "Isn't the student's educational knowledge level improved in the covid 19 period?"

Students were used mobiles , laptops ,tablets in online learning system.Most of them attracted to the Facebook , Instagram ,WhatsApp , TikTok ,YouTube and other social medias. Then they evade their studies.And also there are several bad cases reported about the students in Sri Lanka. Then we can get understand of students's current education levels.

1.3. Significance of the study

Doing this research, we can get rough idea about student's educational status decreased in the Covid 19 period in my GN division. If the education status is poor, then we can organize seminars, group classes, extra classes, educational camps and etc for develop the students education status and improve the desire about the studying hard.

1.4 Limitations of the study

Grade 8-11 students in 501-Mulleriyawa are choosen for this research. We assume in here don't include the grade 1-5 students because they are studying with their parent's support and grade 12,13 students also do their self studies better than other students. The reason of starting grade 8 is ,Grade 8(in 2022) students were in grade 6 in 2019. Grade 6,7 students are in grade 4,5 in 2019. Then we cannot collect their mathematics results. There are

We cannot measure the educational status using every subjects. Therefore mathematics is selected as measuring subject.

2. Data Collection

Target population is grade 8 to grade 11 students in 501- Mulleriyawa, north division .501- Mulleriyawa division has 1450 families. In my case censes are not good to collect data because there are nearly 1450 houses to visit. We have to collect following data from each student.

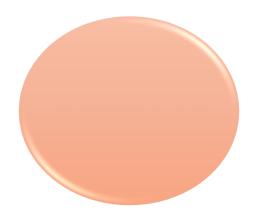
- ➤ Grade in 2019
- ➤ Grade in 2022
- ➤ Mathematics results in 2019 last term test
- ➤ Gender
- ➤ Have you attended school online classes
- ➤ Have you attended private mathematics classes
- Preference level about mathematics.
- > Paper number(by given us)

Therefore we should select a sample.

The population is homogeneous. Population size is 250. Then the suitable sampling method is Simple Random sampling. I suppose to take 25 sampling units from sampling frame randomly. Questionnaire is the most appropriate method to collect data from this sample. We have to check their school progress report card for check the mathematics results.

First they will be taken for a physical questionnaire. They have to answer the mathematics paper in particular time period, also the paper is according to their current grade. (grade in 2022)

3. Data analysis



Population
(all grade 8-11 students in

501- Mulleriyawa, North division)

$$\mu_{\rm d}$$
, $\sigma^2_{\rm d}$, $N = 250$



Sample
(randomly selected grade
8-11 students in

501- Mulleriyawa, North division)

$$\bar{y}_d$$
 , s^2_d , $n = 25$

First 2019 1^{st} , 2^{nd} , 3^{rd} terms mathematics marks of the students will be colleted. Then calculate mean mathematics marks of students.

 $M_{\text{pi}}-i^{\text{th}}$ student's previous exams mean marks.

Student number	1 st term marks	2 nd term marks	3 rd term marks	M_{pi}	
1					
2					
i					
100					

Then we have

Student	1	2	3	4	i	25
number						
M_{ni}						
M_{pi}						
M_{Di}						
Signed						
D						

 $M_{Di} = M_{ni} - M_n$

Let α be the probability that a student improved it's educational knowledge about mathematics.

$$H_0 := \alpha_+ = 0.5$$
 vs $H_1 := \alpha_+ > 0.5$

This situation shows two dependent difference population. Therefore we can apply here Two sample Binomial test which is a nonparametric test.

After the analysis, we can give conclusions accurately.

References

- http://www.statistics.gov.lk/pophousat/cph2011/Pages/Activities/Reports/FinalReport_GN/population/P2.pdf
- https://www.who.int/health-topics/coronavirus#tab=tab_1
- http://www.kolonnawa.ds.gov.lk/index.php/en/statistical-information.html
- https://www.hpb.health.gov.lk/en
- https://global-monitoring.com/gm/page/events/epidemic-0002015.fTDtGCxti2qN.html?lang=en#:~:text=Update%202020%2D05%2D26%3A, distancing%20regulations%20remain%20in%20force.

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