



The Result of Covid-19 Spreads in Education World

Nur Laila Molla

Faculty of Teacher Training and Education, English Education Study Program, Pancasakti University Tegal

Corresponding Author: Nur Laila Molla, **Email:** mollacourse@gmail.com

Received: 9th October 2021

Accepted: 8th November 2021

Published: 4th December

ABSTRACT

COVID-19 is the most devastating pandemic in human history. Every aspect of human life on earth is disrupted, with little or no education. Many countries have decided to close schools, colleges, and universities, including Indonesia. The crisis came as a shock to governments in every part of the world, including Indonesia, which had to make drastic decisions to close their schools and save lives or to reopen schools in order to save workers' livelihoods. The purpose of this study was to analyze the impact of the spread of covid-19 in the world of education. 75 respondents used for sample. The sample selection method used was the target sample. An analytical tool used to assess product duration and determination. Test results show that the spread of Covid-19 has a positive impact on the education world. The study found that the spread of covid-19 affects the world of education.

Keywords: Education, pandemic, covid-19

INTRODUCTION

The spread of the coronavirus or COVID-19 has presented its challenges to educational institutions in Indonesia. In anticipation of the transmission of the virus, the government has issued policies such as social isolation, physical isolation, on major social boundaries (PSBB). This situation requires that people stay home, study, work, and worship at home. As a result of this policy, the education sector such as schools and universities stopped the face-to-face learning process. Instead, an online learning process that can be done at each student's home.

The COVID-19 epidemic is a global catastrophe. Every aspect of human life on the planet is disrupted, with the exception of alternative education. Many countries have decided to close schools, colleges, and universities, including Indonesia. The crisis came as a shock, and governments in any part of the world, including Indonesia, had to make drastic decisions to close their schools and reduce the number of people who had to work hard to save their lives. There are two impacts on the sustainability of education created by the Covid-19 epidemic. The first is the temporary effect, which is felt by many families in Indonesia, in urban and rural areas. In Indonesia, many families are less accustomed to doing homework. Home schooling in Indonesian families is very surprising, especially in the production of parents who are often busy with their work outside the home. So are the psychological problems of students who are accustomed to reading face-to-face with their teachers. All aspects of education in public health are "exposed" to illness due to COVID-19. The implementation of the teaching takes place online. This program runs at an unprecedented rate and is tested because it has never happened before. Inevitably in remote areas with a large population of school-age people, there is confusion, because information technology infrastructure is very limited. Student testing goes online and there are many attempts and errors with the system that are not sure that most tests have been canceled. Secondly is the long-time period impact. Many Indonesian groups will be exposed to the long-term effects of this COVID-19. The long-term impact of education is a matter of increasing justice and inequality between civil society groups and inter-regional groups in Indonesia. More than one thousand million kids are vulnerable to falling at the back of because of college closures aimed at curbing the unfold of COVID-19. In order to keep children in the world learning, many countries have adopted sophisticated educational programs. Yet many children around the world - especially those living in poorer households - do not have access to the Internet, computers, TVs, or radios at home, exacerbating the effects of inequality in learning. Students who do not have access to the skills required for home-based learning have limited

means of furthering their education. As a result, many put themselves at risk of never going back to school, underestimating the progress made over the years in education around the world.

The schooling process is the best community policy tool for developing knowledge and skills. In addition, many students think that school is a lot of fun, and they can communicate with one another. Schools can improve student community skills as well as community awareness. The whole school is a way of communicating between students and teachers to develop their intelligence, skills, and love. But now jobs in schools have come to a complete halt due to the Covid-19 disruption. what is the effect at the school curriculum? Especially in Indonesia, there is ample evidence that schools have a significant impact on productivity and economic growth. Several previous studies stated that the learning outcomes of online learning were better than face-to-face learning (Nira Radita, et al, 2018), while other studies stated that the learning outcomes using face-to-face learning were better than those using online learning (Al-Qahtani & Higgins, 2013). Technically, in online learning, supporting devices such as gadgets and internet connections must be available for both teachers and students (Simanihuruk, et al, 2019). Based on this background, researcher is interested in conducting thematic research " The Result Of Covid-19 Spreads In Education World "

2. MATERIAL AND METHODS

1. Definition of Education

It is said that education is one of the indicators of development and the level of staff, so the level of staff is highly dependent on the level of education. Education is the most important and strategic sector in the development of the country because it is one of the determinants of national progress. It is also said that education is the most effective way to improve the quality of life and well-being of the community, and that can lead the nation to prosperity. Education is a powerful tool for change, and it improves health and well-being, contributes to social stability, and promotes long-term economic growth. Education is also an important factor in achieving all the goals of sustainable development.

Education is the process by which information is transmitted from one person to another according to the standards set by experts. The transfer of knowledge is expected to transform attitudes, behavior, maturity of thought, and maturity of personality into formal education and informal education.

Education is based on the Greek word "paedagogike", which is a combination of the word "pais" meaning "child" and the word "ago" meaning "I direct". So paedagogike means I

direct children. People who work to guide children with the intention of taking them to a place of learning, in Greek they are called "paedagogos" (Hadi, 2008: 17).

In short, education is a sincere effort to guide children. Education as presented in a large Indonesian dictionary is defined as the process of changing one's attitude and behavior to a person or a group of people in order to mature.

The word education has distinct meanings. all of us translates a phrase based totally on their past reviews, wishes, and goals. dad and mom, instructors, administrators, spiritual leaders, politicians, and artists translate the word schooling in their own way. for instance, for a pupil, training way gaining knowledge, obtaining a diploma. A government official might say that it means training people to be good citizens. The teacher can interpret education as a way to build new people and new communities. Therefore, it can be concluded that, basically, education is a conscious and systematic process of transmitting information to transform the behavior of individuals and mature people through a system of teaching in the form of formal, informal, and informal education. (Irham, et al, 2013: 19)

2. Definition of Covid-19

Covid-19 is the call of a sickness because of coronavirus. The name was given by the WHO (World Health Organization) as the official name for the disease. Covid itself stands for Corona Virus sickness 2019. Covid-19 is a disease caused by coronavirus that attacks the respiratory tract, causing high fever, cough, fever, shortness of breath, and sore throat. According to the WHO website, coronaviruses are a large family of viruses that can cause disease in animals or humans. In humans, corona is known to cause respiratory infections ranging from the common cold to more serious illnesses such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The direct route of transmission is not usually fully confirmed, but infection occurs mainly when people are close enough long. It can spread as quickly as two days before an infected person shows symptoms, even in people who have never had symptoms. People stay infected for up to ten days in severe cases, and two weeks in severe cases. Various diagnostic tests have been performed to diagnose the disease. Although work continues to develop antimicrobials, current standard treatments are still symptomatic. Management involves symptomatic treatment, supportive care, isolation, and diagnostic measures.

The research method by Arikunto (2002:136) is the method used by researchers in collecting research data. This sort of research is descriptive. Approach type used is a correlational approach and is quantitative research.

1. Research Variables

According to Cozby (2009: 105) "Variable is any event, situation, behavior or individual characteristics that vary". Research variable data must appear in observable and measurable behavior. Variables distinguish one object from another. Objects become members of the population because they have one characteristic in common. Even though the objects in the population are the same, they can be distinguished from each other in a variable.

A variable can be defined as an individual attribute or object that varies from one to another, from one object to another. In this study there are 2 (two) variables that become the object of a study:

1) Independent Variable

This variable is often referred to as a stimulus variable, predictor, antecedent, this type of variable is the variable that causes the change or the emergence of the dependent variable (bound). The independent variable (X) in this study is the spread of COVID-19.

2) Dependent Variable

Variable of dependant is frequently known as the output variable, standards, consequent. The based variable is the variable that is encouraged or that turns into the end result, due to the independent variable. on this examine, the dependent variable is the world of education (Y). The population in this study is known to be 293 people, while the level of precision set is 10% (0.1%) so that the number of samples taken based on this formula is:

$$n = \frac{293}{293(0.1)^2 + 1} = \frac{293}{293(0.1)^2 + 1} = \frac{293}{293(0.01) + 1} = \frac{293}{2.93 + 1}$$

$$n = \frac{293}{3.93} = 74.55 \text{ rounded up to } 75 \text{ respondents}$$

2. Data collection technique

1. Questionnaire

The technique used in this data collection is a questionnaire conducted by providing a list of questions to the respondents, in this case, the management and members of the cooperative. The measure used in measuring the variable is an ordinal measure where the measure allows researchers to rank respondents from the "lowest" level to the "highest" level. While the ordinal measure used is a Likert scale consisting of five levels, from STS "Strongly Disagree", TS "Disagree", RR "Hesitating", S "Agree", also SS "Strongly Agree". While the techniques used in scoring are:

2. Questionnaire Validity

"A valid instrument means that the measuring instrument used to obtain the data is valid, meaning that the instrument can be used to measure what is to be measured" (Sugiyono, 2015:267). Validity is very important because, without valid instruments, data or research will give biased conclusions. Based on the method of testing, this research is a type of internal validity. Internal validity is achieved when there is a match between the parts of the instrument and the instrument as a whole. The formula used is Pearson's Product Moment formula is as follows:

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\} \{N \sum Y^2 - (\sum Y)^2\}}}$$

Description:

r_{xy} : Correlation index

N: Number of subjects/respondents/sample

X: Spread of Covid-19

Y: Education World

After obtaining the the number of xy r , then it is negotiated with the table value of r if xy $r \geq r$ table, instrument items are said to be valid. PPM correlation is denoted (r) provided that the value of r is not more than the value ($-1 \leq r \leq +1$).

$$\text{Formula: } r_{11} = \left(\frac{k}{k-1} \right) \left(\frac{S^2 - \sum pq}{S^2} \right)$$

Description:

k : The number of questions

$\sum pq$: Sum of pq

S^2 : Total variance. (Arikunto, 2002:103)

In this study, fidelity tests used the Cronbach Alpha formula as stated by Konting (2009) the value of Cronbach Alpha reliability 0.60 was used for research. This means that if the result of the instrument's reliability is greater than 0.60, the instrument is the lowest acceptable value measuring instrument, so it can be used for research.

1) *Product Moment* Correlation Coefficient Analysis

The correlation analysis used in this study is the Pearson Product Moment (PPM) correlation analysis used to determine the level of relationship between independent variables and dependent variables. In this study, the independent variable is the member's perception (X), while the dependent variable is service quality (Y).

Relative Formula Person Product Moment (PPM) according to Riduwan (2005:138) is as follows:

$$r_{xy} = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{\{N \sum x^2 - (\sum x)^2\} \{N \sum y^2 - (\sum y)^2\}}}$$

That:

r_{xy} = coefficient of correlation x and y

X = education World

Y = spread of covid19

n = number of samples

PPM correlation is denoted (r) provided that the value of r is not more than the value $(-1 \leq r \leq +1)$.

If:

$r = -1$ it means that the correlation is perfectly negative or the relationship is not significant or strong.

$r = 0$ it means that there is no correlation, or there is no strong or significant relationship.

$r = 1$ it means that the correlation is very strong or there is a strong or significant relationship. Meanwhile, the meaning of value r_{xy} will be consulted with t_{table}

The interpretation of the correlation coefficient of the r-value according to Riduwan (2005:138) is as follows:

- 2) Determination Coefficient Analysis. The determination coefficient is used to determine variation proportion of variable Y (education world) around the average which is explained by the influence between the variables Y (education world) and X (the spread of covid 19). The formula is as follows (Riduwan, 2005:139)

$$KD = r^2 \times 100\%$$

Remark:

KD = determination coefficient

r^2 = correlation coefficient squared

3. RESULTS

A. Data Description

The re-examination of the competency test and the results of the calculation of the 12 items in the questionnaire are as follows.

Table 3

Validity Recapitulation Results

Covid-19 (X) Questionnaire Spread

No item.	R _{Count} Product moment	R _{table} (N=75) Product moment	Remarks $r_{count} > r_{table}$
1	0.4163	0.227	Valid
2	0.3710	0.227	Valid
3	0.5692	0.227	Valid
4	0.5945	0.227	Valid
5	0.5064	0.227	Valid
6	0.6328	0.227	Valid
7	0.6669	0.227	Valid
8	0.3882	0.227	Valid
9	0.6057	0.227	Valid
10	0.5870	0.227	Valid
11	0.5081	0.227	Valid
12	0.6472	0.227	Valid

Source: Processing data

According to table 3, it is able to be stated that value of rcount (correlation of each item) the validity index is 0.4163; 0.3710; 0.5692 and so on until the 12th questionnaire item is r count of 0.4163. When consulted on r_{table} *product-moment* with the number of samples (N) = 75 at a significance level of 5%, 0.227 is value of r table. Distribution results of the questionnaire after being calculated by the correlation formula showed that all 12 questionnaire items were valid. It is said to be valid because $r_{count} > r_{table}$, (0.4163 > 0.227).

Achievement Motivation Reliability Test (Questionnaire) Achievement Motivation (X) Instrument reliability (questionnaire) Achievement Motivation (X) based on calculations through the MS. Excel application program from Microsoft as contained in Appendix 5 obtained an r11 value of 0.940 using the Cronbach Alpha formula as follows.

$$r_{11} = \left[\frac{k}{(k-1)} \right] \left[1 - \frac{\sum pq}{S^2} \right]$$

Where it is known that:

r_{11} = Instrument reliability

k = Number of question items = 12 items

$$\sum pq = \text{Number of item variances} = 7.6843$$

$$S^2 = \text{Variance Total} = 35.152$$

obtained:

$$r_{11} = \left[\frac{12}{(12-1)} \right] \left[1 - \frac{7.6843}{35.152} \right]$$

$$r_{11} = [1.090][1 - 0.218]$$

$$r_{11} = 1.090 \times 0.781$$

$$r_{11} = 0.851$$

The reliability of the student interest questionnaire instrument (X) of $r_{11} = 0.851$ was consulted with the value of the r product moment table. It is known that $N = 75$ obtained $r_{t(5\%)} = 0.227$. Because the reliability value is higher than the r table value, the instrument is reliable so it can be used for research.

B. Data analysis

1. Correlation Analysis

The use of this Product Moment correlation formula is to determine the r_{xy} value, namely the relationship between the X variable (Covid-19 Spread) and the Y variable (Education World). To calculate the value of r_{xy} , it is necessary to prepare a table that represents all variations in the values of X and Y. The preparation table for calculating the correlation is as follows:

Table of Preparation for Calculation of Correlation of Variable X (Covid-19 Spread) X and Variable Y (Education World) Y

No	X	Y	X ²	Y ²	XY
1	45	35	2025	1225	1575
2	36	45	1296	2025	1620
3	44	42	1936	1764	1848
4	43	60	1849	3600	2580
5	42	55	1764	3025	2310
6	52	48	2704	2304	2496
7	48	45	2304	2025	2160
8	47	48	2209	2304	2256
9	46	48	2116	2304	2208
10	44	44	1936	1936	1936
11	45	43	2025	1849	1935

12	46	53	2116	2809	2438
13	49	49	2401	2401	2401
14	45	53	2025	2809	2385
15	46	54	2116	2916	2484
16	51	44	2601	1936	2244
17	52	50	2704	2500	2600
18	53	49	2809	2401	2597
19	54	53	2916	2809	2862
20	55	52	3025	2704	2860
21	56	52	3136	2704	2912
22	50	53	2500	2809	2650
23	51	54	2601	2916	2754
24	52	54	2704	2916	2808
25	55	56	3025	3136	3080
26	54	55	2916	3025	2970
27	56	57	3136	3249	3192
28	57	58	3249	3364	3306
29	58	56	3364	3136	3248
30	54	54	2916	2916	2916
31	47	51	2209	2601	2397
32	52	53	2704	2809	2756
33	39	54	1521	2916	2106
34	46	56	2116	3136	2576
35	47	54	2209	2916	2538
36	49	55	2401	3025	2695
37	46	54	2116	2916	2484
38	47	53	2209	2809	2491
39	40	56	1600	3136	2240
40	42	43	1764	1849	1806
41	51	44	2601	1936	2244
42	50	42	2500	1764	2100
43	48	41	2304	1681	1968
44	48	43	2304	1849	2064

45	40	46	1600	2116	1840
46	46	54	2116	2916	2484
47	54	54	2916	2916	2916
48	49	55	2401	3025	2695
49	40	50	1600	2500	2000
50	44	52	1936	2704	2288
51	52	53	2704	2809	2756
52	49	56	2401	3136	2744
53	51	54	2601	2916	2754
54	50	58	2500	3364	2900
55	51	38	2601	1444	1938
56	49	36	2401	1296	1764
57	49	35	2401	1225	1715
58	43	34	1849	1156	1462
59	44	39	1936	1521	1716
60	41	38	1681	1444	1558
61	41	30	1681	900	1230
62	39	34	1521	1156	1326
63	42	38	1764	1444	1596
64	45	36	2025	1296	1620
65	37	36	1369	1296	1332
66	37	31	1369	961	1147
67	39	33	1521	1089	1287
68	37	35	1369	1225	1295
69	44	35	1936	1225	1540
70	33	34	1089	1156	1122
71	35	35	1225	1225	1225
72	38	36	1444	1296	1368
73	38	38	1444	1444	1444
74	49	39	2401	1521	1911
75	36	36	1296	1296	1296
	3480	3496	164080	168178	164365
	ΣX	ΣY	ΣX^2	ΣY^2	ΣXY

According to data in the table, data obtained from the questionnaire score recapitulation of each variable, the data is used to determine the close relationship between the two variables. Details of data from N , $\sum X$, $\sum Y$ is as follows.

Next, each value of X , Y , $\sum X$ (Sigma X), and so on is interpreted into the formula of product-moment correlation as following.

$$r_{xy} = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{\{N \sum x^2 - (\sum x)^2\} \{N \sum y^2 - (\sum y)^2\}}}$$

Thus obtained:

$$r_{xy} = \frac{75(165403) - (3480)(3496)}{\sqrt{(75 \times (164365) - (12110400)) (75 \times (168179) - (12222016))}}$$

$$r_{xy} = \frac{12405225 - 12166080}{\sqrt{(12327375 - 12110400)(12613425 - 12222016)}}$$

$$r_{xy} = \frac{239145}{\sqrt{(216975)(391409)}}$$

$$r_{xy} = \frac{239145}{\sqrt{84925967775}}$$

$$r_{xy} = \frac{239145}{291420.6029}$$

$$r_{xy} = 0.8206$$

The result of rcount (correlation rxy) of 0.8206 is associated with the R-Value Interpretation table (correlation) according to Table 3: Interpreting the R-value in chapter III (page 50), the value of 0.8206 lies between the coefficient interval 0.80 – 1.000 which means that the influence of covid-19 spreads in education world is positive and very strong.

2. Determination Coefficient Analysis

The Determination Coefficient is a formula to express the size of the percentage contribution of the variable X (Covid-19 Spread) to Y (Education World).

$$KD = r^2 \times 100\%$$

Result :

$$= 0.8206^2 \times 100\%$$

$$= 67.33 \%$$

According to the value of determination coefficient = 67.33%, this means that the variance that occurs in the variable in the world of education (Y) 67.33% is determined by the variance that occurs in the variable spread of covid-19 (X). This generally means that the impact of covid-19 spreads in education world is 67.33%. While the remaining 32.67% is determined by other factors outside the X variable.

4. DISCUSSION

This research was conducted solely based on the phenomenon regarding the influence of covid-19 spreads in education world.

Approach in this research is quantitative. This means that in a quantitative context there are key concepts regarding the validity, reliability, hypotheses, and statistical meaning.

The results of the 12th questionnaire after being consulted on the product-moment rtable with the number of samples (N) = 75 at a significance level of 5% obtained the value of r table of 0.8206. The results of the distribution of the questionnaire after being calculated by the correlation formula indicate that all 20 items of the questionnaire are valid. It is said to be valid because $r_{count} > r_{table}$, as for the reliability of the questionnaire is very high that is equal to 0.851.

Results r_{count} (correlation r_{xy}) of 0.8206 associated with the Interpretation table located between the coefficient intervals 0.800-1.000 which means that there is a positive influence on covid-19 spreads in education world. Hypothesis is accepted.

5. CONCLUSION

1. Result $r_{xy} = 0.8206$ associated with the Interpretation table is located between the coefficient interval 0.800–1.000 which means that the influence of covid-19 spreads in education world is positive and strong.
2. Value coefficient of determination = 67.33% this can mean that the variance that occurs in the variable world of education (Y) 67.33% is determined by the variance that occurs in the variable spread of covid 19 (X). This generally means that the impact of covid-19 spreads in education world is 67.33%. While the remaining 32.67% is determined by other factors outside the variable X variable Y which is not examined.

REFERENCES

- Al-Qahtani, A. A. Y., & Higgins, S. E. (2012). Effects of traditional, blended, and e-learning on students' achievement in higher education. *Journal of Computer Assisted Learning*, 29(3), 220–234. doi:10.1111/j.1365-2729.2012.00490.x
- Arikunto, Suharsimi. (2006). *Prosedur Penelitian Suatu Pendekatan Praktek*. Jakarta: Rinneka Cipta.
- Cozby, Paul C. (2009). *Methods in Behavioral Research Edisi ke-9*. Yogyakarta: Pustaka Pelajar.
- Hadi, Soedomo A. (2008). Konsep Pendidikan. *Pendidikan*, 89–109.
- Konting, Mohd Majid. (2009). Kaedah Penyelidikan dalam Pendidikan. In *Kaedah Penyelidikan Pendidikan* (pp. 101–103). Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Simanihuruk, A., Mailani, E., Manurung, I., & Rahmulyani, R. (2019). Development of Mathematics Learning Books for Primary Teacher Education Students. *European Alliance for Innovation* no. <https://doi.org/10.4108/eai.3-11-2018.2285612>
- Radita, N., Aminah, S., & Kanthi, Y. A. (2018). Eksperimentasi Pembelajaran Matematika Diskrit Moda Daring pada Program Studi Teknik Informatika. *MUST: Journal of Mathematics Education, Science and Technology*, 3(2), 65. <https://doi.org/10.30651/must.v3i2.1984>
- Riduwan. (2004). *Statistik untuk Lembaga & Instansi Pemerintah/Swasta*. Bandung: Alfabeta.
- Sugiyono. (2015). *Metode Penelitian dan Pengembangan Pendekatan Kualitatif, Kuantitatif, dan R&D*. Bandung: Alfabeta, 2015.
- Irham, M., & Wuryani, W. (2013). Penilaian Dalam Perspektif Kurikulum 2013. *INSANIA : Jurnal Pemikiran Alternatif Kependidikan*, 19(1)