

# IMPLEMENTATION OF STUDENT LEARNING (4C) DURING THE COVID-19 PANDEMIC

Sri Lestari<sup>1</sup>, Ambuy Sabur<sup>2</sup>, Nurul Azizatul Latifah<sup>3</sup>, Sutarman<sup>4</sup>  
Faculty of Teacher Training and Education, Sheikh-Yusuf Islamic University, Tangerang,  
Indonesia<sup>1,2,3,4</sup>  
Email: [slestari@unis.ac.id](mailto:slestari@unis.ac.id)<sup>1</sup>, [ambuy@unis.ac.id](mailto:ambuy@unis.ac.id)<sup>2</sup>, [1705010032@students.unis.ac.id](mailto:1705010032@students.unis.ac.id)<sup>3</sup>,  
[sutarman@unis.ac.id](mailto:sutarman@unis.ac.id)<sup>4</sup>

**Abstract:** Learning implementation by providing 4C skills (Critical Thinking, Communication, Collaborative, and Creativity) is one of the responsibilities of 21st century education, namely creating a quality workforce to be able to compete in the 21st century. This study aims to analyze and find out how much influence online learning and the role of parents in the learning implementation. The population in this study was 656 students of class XI and XII of SMAN 14 Tangerang City for the Academic Year 2021/2022. Sampling was carried out using the Simple Random Sampling technique with a sample size of 268 students. Data collection techniques using questionnaires or questionnaires and data analysis using descriptive statistical analysis and multiple linear analysis with the help of IBM SPSS Version 25.0. The results of the research and discussion are 1) partially online learning has a positive and significant effect on the learning implementation as indicated by the  $t_{count} 6.966 > t_{table} 1.969311$  or  $p\text{-value } 0.000 < 0.05$ . 2) partially the role of parents has a positive and significant effect on the learning implementation as indicated by the  $t_{count} 2.726 > t_{table} 1.969311$  or  $p\text{-value } 0.007 < 0.05$ . 3) Simultaneously online learning and the role of parents on the learning implementation have a positive and significant effect, as indicated by a  $p\text{-value of } 0.000 < 0.05$ .

**Keyword:** Implementation, Student, Learning 4C, Covid-9 Pandemic

## 1. INTRODUCTION

Education in the 21st century has responsibilities that are not easy, one of which is to create a quality workforce to be able to compete by providing students with adequate competencies. The world of work requires humans who are ready to compete with robots so that skills that are not possessed by robots are needed. These skills are 4C (Critical Thinking, Communication, Collaborative, and Creativity). Therefore, in the 21st century, it is expected that human resources have these 4 competencies in order to prepare students to be able to compete in a technology-based world of work (Partono et al., 2021).

The Covid-19 pandemic in Indonesia has been going on for more than a year. Various ways have been taken so that the pandemic will end soon because it has an impact on decreasing activities in all sectors of life. The Minister of Education and Culture gave a decision through Circular Letter Number 3 of 2020 that learning activities were carried out at home online both at the school level and at the college level. (Kemendikbud RI, 2020). Based on this decision, the face-to-face learning process in class was replaced with online learning.

Sundayana, (2020) said that the online learning process in Indonesia is only 20% of the lesson plans that are set every semester because online-based learning is not something that is usually done for most people. The research of Basilaia et al., (2020), explains the obstacles experienced in the online learning process such as lack of mastery of technology, the addition of internet quota fees, parents getting additional work in accompanying children to study, reduced communication between students, teachers and parents and for teachers to make working hours unlimited because they have to communicate and coordinate by parents, other teachers and principals. In addition, there are complaints such as an unstable internet network, the lack of supporting media facilities for online learning, materials that cannot be delivered in full at every meeting, and the difficulty of controlling teaching and learning activities (Widiyono, 2020).

Even though learning is done online, students still get the implementation of learning skills that must be possessed in the 21st century (Ayun, 2021). It is very important to equip students with 4C competencies through programs at educational institutions in Indonesia, but seeing the reality there are still many educational institutions that have not been able to produce outputs that are ready to compete in the 21st century (Partono et al., 2021). Schools have not been effective so that it hinders development to improve these competencies (Henry Dinus Hutabarat, 2020). Based on the Field Implementation Practice (PPL) carried out by researchers in the online learning process, the lack of directing students to get the implementation of learning 4C skills. Whereas the learning objectives in the 21st century have 4C capabilities (Critical Thinking, Communication, Collaboration and Creativity) (Arifin, 2017). Learning is very important to improve 4C competencies, thereby improving the learning process better (Suharna & Abdullah, 2020). 4C skills can be developed through a student-centered learning process that collaborates with teams and learning related to the context of everyday life (Riskayanti, 2021).

Based on the Katadata survey, (2020) there is 3% lack of assistance from parents out of 3,839 responses. Because many parents find it difficult to accompany the learning process, as a parent, they must spend more time. According to Putra et al., (2020) many parents complain about some problems during learning at home, such as too many tasks given and not maximizing technology. Responsibility as a parent strengthens its role to be the first and foremost educator for children, with readiness to learn from home it can be seen how to guide children during learning from home (Purwanto et al., 2020).

## **2. RESEARCH METHODS**

This research was conducted at SMAN 14 Tangerang City from January to August 2021. The research method is a correlational survey method with a quantitative approach. Correlation research is used to examine the relationship between variables or more (Abdullah, 2015). Data were analyzed using multiple regression analysis.

The population in this study were all students of class XI and XII of SMAN 14 Tangerang City for the 2020/2021 academic year. With a total population of 656 students. Sampling using Simple Random Sampling technique. Calculation of the sample using the slovin formula with an error of 5% obtained 258 students as a sample.

### **2.1. Learning Implementation (Y)**

Implementation of learning is a student activity carried out to raise or compile new information and abilities that can be developed by increasing 4C competencies (Critical Thinking, Communication, Collaboration and Creative) so that they become provisions in the 21st century. Thus, according to Ariyanti et al., ( 2020) The implementation of learning that will be experienced by students can shape them to be able to communicate well, create new things, become critical thinkers and easily collaborate. Described as follows:

### **2.2. Critical Thinking**

The results of research by Munawaroh & Siswono, (2020), critical thinking is a thinking process to do something, evaluate and make decisions based on their beliefs to solve a problem, because critical thinking is very important to have in helping solve a problem. indicators of critical thinking according to Munawaroh & Siswono, (2020) are able to identify a response from others, formulate the main points of the problem given, reveal information in solving problems, and can evaluate appropriate reasons for solving problems.

### **2.3. Communication**

Communication is a language exchange process that occurs in the human world. Activities that are very often carried out by everyone in any case, wherever and whenever, one of which is communicating, because for human life communication is

very important. Therefore, in the interpersonal context, group and mass communication always involves humans (Septikasari & Frasandy, 2018).

The indicators of communication skills proposed by Soemaro in Hendriana, et al (2017) in Anderha & Maskar, (2020) include:

- a. Delivering real objects, situations and everyday events
- b. Develop arguments and explain ideas
- c. Listen, write then discuss
- d. Reading comprehension of a written presentation

## **2.4. Explain and ask questions**

### **2.4.1. Collaborative**

According to Wasono and Hariyanto in Septikasari & Frasandy, (2018) collaborative learning can take place between students in different classes and different schools and also occurs at any time, not necessarily at school, for example a group of students helping each other to do homework.

### **2.4.2. Creative and Innovation**

Creativity is the ability to think in finding and creating new ideas or new thoughts by producing useful work in solving problems (Estheriani & Muhid, 2020)

### **2.4.3. Online Learning (X1)**

Online learning is a system that is used to facilitate the distance learning process.

- a. Preparing for Online Learning is a process of analyzing, estimating, considering and making decisions about what is needed by students who are expected to achieve goals effectively (Supriadie & Darmawan, 2012).
- b. Managing Online Learning Learning management is an effort to regulate or control the learning process according to the concepts and principles of learning to achieve goals effectively, efficiently and productively (Erwinsyah, 2016).
- c. Evaluation or Assessment of Online Learning, The existence of an evaluation can determine the level of progress achieved by students, find out the level of effort made by students in the learning process and know the methods used by teachers in the teaching and learning process (Muhibibi Syah, 2018).

#### 2.4.4. Parental Role (X2)

The role of parents is an obligation carried out by fathers and mothers to carry out their duties to guide and care for their children in terms of formal and non-formal education.

- a. Guiding As parents can help children in preparing the media to be used and accompany the learning process so that the teaching and learning process is carried out at home online (Ifitah & Anawaty, 2020)
- b. Motivating Giving motivation is mandatory for parents to their children so that there is responsibility for parents (Wahidin, 2019)
- c. Facilitator Haerudin et al., (2020) as parents become children's facilitators by providing learning facilities to support the learning process such as learning places, textbooks, stationery and providing other facilities to develop children's talents and interests.

### 3. RESULTS AND DISCUSSION

#### 3.1. Research Results Prerequisite Test for Normality Test Analysis

Normality test is a data test conducted to determine whether the data taken is normally distributed or not. The test was carried out using the One Sample Kolmogorov-Smirnov formula (Sugiyono, 2018). By looking at Asymp. Sig (2-tailed). When Asymp. Sig (2-tailed)  $> 0.05$ , then the data is normally distributed, and vice versa.

Table 1. Normality Test Results

No	Keterangan	Residual
1.	N	258
2.	Test Statistic	0,41
3.	Asymp. Sig. (2- tailed)	0,200

Source: Output SPSS v.25 Primary Data that has been processed

Based on Table 1. above, it is concluded that the Kolmogorov-Smirnov Significance Value is  $0.200 > 0.05$ , it can be stated that the data is normally distributed.

#### 3.2. Linearity Test

The linearity test is used to determine the linearity of the data, whether the data to be tested has a linear relationship or not. It can be seen the value of Deviation from

Linearity Sig. > 0.05, then there is a significant linear relationship between the independent variable and the dependent variable or vice versa.

Table 2. Summary Results of Linearity Test

No	Variable	Sig	Keterangan
1.	N X <sub>1</sub> dengan Y	0,221	Linier
2.	X <sub>2</sub> dengan Y	<u>0,567</u>	

Source: Output SPSS v.25 Primary Data that has been processed

Based on the significance value (Sig) of the output above, it can be obtained the Deviation from linearity value of the relationship between the two variables, so it can be concluded that there is a significant linear relationship between the variables.

### 3.3. Multiple Regression Analysis Hypothesis Test

Multiple regression analysis of the number of independent variables (X) used more than one with one dependent variable (Y) by making predictions, changes from the dependent variable (Y) if the value of the independent variable (X) is increased or decreased (Sugiyono, 2017).

Table 3. Summary of Multiple Regression Analysis Results

No	Keterangan	Residual
1.	(Constant)	39,943
2.	Pembelajaran Daring (X <sub>1</sub> )	0,372
3.	<u>Peran Orang Tua (X<sub>2</sub>)</u>	<u>0,154</u>

Source: Output SPSS v.25 Primary Data that has been processed

Based on the results of multiple regression analysis above, the constant value is positive at 39,943 which means that the independent variables of online learning and the role of parents are zero, then the implementation of learning is worth 39,943. While the value of the coefficient of online learning is positive, namely 0.372, which means that the influence of online learning on the implementation of learning has a positive value. Furthermore, the value of the parental role coefficient is positive at 0.154 which indicates that the parental role variable has a positive influence on the implementation of learning.

### 3.4. Determinant Coefficient (R<sup>2</sup>)

The determinant coefficient (R2) is used to check the best percentage or accuracy of the regression analysis on the effect of the independent variable (X) on the dependent variable (Y) which is indicated by the magnitude of the determinant coefficient (R2) between 0 (zero) and 1 (one).

Table 4. Summary of Coefficient of Determination Results (R2)

Model	R square	R Adjusted	R Square	Std. Error of the Estimate
1	0,535	0,286	0,280	4,80722

Source: Output SPSS v.25 Primary Data that has been processed

Based on the results of SPSS version 25.0, the coefficient of determination (R2) is 0.286. So this shows that the online learning variable (X1) and the role of parents (X2) together affect the learning implementation variable (Y) which is 28.6% while the remaining 71.4% is influenced by other factors outside the variable. in this research.

### 3.5. Statistical Hypothesis Partial Test (T Test)

The t-test shows how far the influence of one independent variable individually on the dependent variable. If  $t_{count} < t_{table}$  and  $sig < 0.05$  then  $H_0$  is accepted but if  $t_{count} > t_{table}$  and  $sig > 0.05$  then  $H_0$  is rejected. So that there is an influence between the X variable, there is a Y variable partially.

Table 5. Summary of Multiple Regression Test Analysis Results X1 against Y and X2 against Y

No	Nilai t			
	Variable	t-calcutae	t-table	Sig.
2	$X_1 \rightarrow Y$	6,966	1,969311	0,000
3	$X_2 \rightarrow Y$	<u>2,726</u>	<u>1,969311</u>	<u>0,007</u>

Source: Output SPSS v.25 Primary Data that has been processed

Based on the results of the processed data, it shows that online learning on the implementation of learning has a tcount value of  $6.966 > t_{table} 1.969311$  or a p-value of  $0.000 < 0.05$ . Then for the role of parents on the implementation of learning has a

value of  $t_{count} 2.726 > t_{table} 1.969311$  or  $p\text{-value } 0.000 < 0.05$ . So it can be concluded that  $H_a$  is accepted and  $H_o$  is rejected. Which means that partially online learning has a positive and significant effect on the implementation of learning. And also partially the role of parents has a positive and significant effect on the implementation of learning.

### 3.6. Simultaneous Test (F Test)

The F test is used to determine whether all independent variables have a simultaneous or joint effect on the dependent variable. If  $F_{count} < F_{table}$  and  $sig < 0.05$  then  $H_o$  is accepted. If  $F_{count} > F_{table}$  and  $sig > 0.05$  then  $H_o$  is rejected. So that means that there is a simultaneous influence between the independent variables on the dependent variable.

Table 5. Summary of Multiple Regression Analysis Results X1 and X1 against Y

No	Model	Df	F	Sig
1	Regression	2	51,055	0,000
2	Residual	225	-	-

Source: Output SPSS v.25 Primary Data that has been processed

Based on the results of the  $p\text{-value of } 0.000 < 0.05$ . So it can be concluded that  $H_o$  is rejected and  $H_a$  is accepted. So that means that together there is the influence of Online Learning and the Role of Parents on the Implementation of Learning.

## 4. DISCUSSION

Online learning has a positive and significant impact on the implementation of student learning. The results of this study are in line with Hennilawari & Hartini, (2020) that online learning is quite effective during the Covid-19 pandemic condition by giving assignments so as to get good learning outcomes. In Partono et al.'s research, (2021) the implementation of learning 4C skills in improving strategies during the learning process by giving students freedom of opinion, discussion, and collaboration.

The role of parents has a positive and significant influence on the implementation of student learning. Supporting the results of research (Haerudin et al., 2020) that parents' homes feel they can strengthen their relationship with their children and the



values obtained by children are still relatively good, then as parents can see the development of their children in learning. (Agustian, 2018) the results of his research show that there is a positive influence on the implementation obtained during the learning process.

Online learning and the role of parents have a positive and significant effect on the implementation of student learning. This means that online learning that is carried out effectively at home during pandemic conditions and the role of parents in assisting learning has an impact on increasing the implementation of learning obtained by students which consists of increasing students' ability to communicate, collaborate, be creative, and think critically. Herliandry et al., (2020) online learning is an effective solution during the pandemic to activate classes even though schools are closed. Information technology during learning during the Covid-19 pandemic is important with it as a medium and connecting science with the real world to master information technology, communicate and collaborate (Sriyanto, 2021). Conducting online learning makes parents have the implementation of operating applications to support learning (Sukoco, 2020).

## **5. CONCLUSION**

Based on the results of research and discussion, the implementation of learning to students during the learning process by instilling 4C skills (critical thinking, communication, collaborative, and creative) can develop the abilities that exist in students. Online learning and the role of parents have a positive and significant impact on the implementation of student learning during the covid-19 pandemic.

### **5.1. Recommendation**

Parents and teachers should continuously motivate and pay attention to their children during online learning to be effective and efficient. The results of this study can add references for future researchers by adding other variables related to factors that affect online learning the teacher's role and using different analytical techniques SEM or PLS.

## **6. ACKNOWLEDGMENTS**

Thank you to the Institute for Research and Community Service, for supporting this research to completion, especially support in terms of funding for publications, I hope you can benefit and be blessed with all the goodness

## REFERENCE

- Abdullah, M. (2015). *Quantitative Research Methodology*. Aswaja Pressindo.
- Anderha, R. R., & Maskar, S. (2020). Analysis of Students' Mathematical Communication Ability in Online Learning Exponential Material. *Scientific Journal of Realistic Mathematics*, 1(2), 1–7. <https://doi.org/10.33365/jimr.v1i2.438>
- Arifin, Z. (2017). Developing a Measuring Instrument for Students' Critical Thinking Skills in 21st Century Mathematics Learning. *THEOREMS Journal (The Original Research of Mathematics)*, 1(2), 92–100. [http://jurnal.unma.ac.id/index.php/th/a article/view/383/362](http://jurnal.unma.ac.id/index.php/th/a%20article/view/383/362)
- Ariyanti, P. L., Dantes, N., & Marhaeni, A. A. I. N. (2020). Development of My Family Theme Lesson Plan for Class I Students Based on 21st Century Learning and Innovation Skills. *PENDASI: Indonesian Journal of Basic Education*, 4(1), 147–158.
- Ayun, Q. (2021). Analysis of Digital Literacy Level and Student Collaboration Skills in Online Science Class VII Learning. *Journal of Basic Education Didactics*, 5(1), 271–290. <https://doi.org/10.26811/didaktika.v5i1.286>
- Basilaia, G., Dgebuadze, M., Kantaria, M., & Chokhonelidze, G. (2020). Replacing the Classic Learning Form at Universities as an Immediate Response to the COVID-19 Virus Infection in Georgia. *International Journal for Research in Applied Science and Engineering Technology*, 8(3), 101–108. <https://doi.org/10.22214/ijraset.2020.3>
- Erwinsyah, A. (2016). Learning Management as One of the Technologies in Learning. *Tadbir: Journal of Islamic Education Management*, 4(2), 80–94. <https://journal.iaingorontalo.ac.id/index.php/tjmpi/article/view/442>
- Estheriani, N. G. N., & Muhid, A. (2020). Development of Student Thinking Creativity in the Industry 4.0 Era through Learning Devices with Augmented Reality Media. *Scientific Journal of Psychology*, 22(2), 118–129. <https://doi.org/https://dx.doi.org/10.26486/psikologi.v22i2.1206>
- Haerudin, Cahyani, A., Sitihanifah, N., Setiani, R. N., Nurhayati, S., Oktaviani, V., & Sitorus, Y. I. (2020). The Role of Parents In Guiding Children During Learning At Home As An Effort To Stop Covid-19. 1–12.
- Henry Dinus Hutabarat, F. A. H. (2020). Increasing Student Creativity Through E-Learning-Based Learning Media in Class X Students of Sma Negeri 1 Angkola Timur. *Journal of Education and Development*, 8(4), 508–512.
- Iftitah, S. L., & Anawaty, M. F. (2020). The Role of Parents in Accompanying Children at Home During the Covid-19 Pandemic *JCE (Journal of Childhood Education)*, 4(2), 71–81. <https://doi.org/10.30736/jce.v4i2.256>
- Katadata., (2020). <https://databoks.katadata.co.id/datapublish/2020/07/04/ini-senomortantangan-siswa-belajar-di-rumah>

- Ministry of Education and Culture of the Republic of Indonesia. (2020). Circular of the Minister of Education and Culture of the Republic of Indonesia concerning Prevention of Corona Virus Disease (Covid-19) in Education Units.
- Muhibibi Shah. (2018). Learning Psychology. PT RajaGrafindo Persada.
- Munawaroh, S., & Siswono, T. Y. E. (2020). Exploration of Students' Critical Thinking in Collaborative Problem Solving Activities on the Application of Sequences and Series. *Scientific Journal of Mathematics Education*, 10(2), 181–188.  
<https://jurnalmahasiswa.unesa.ac.id/index.php/mathedunesa/article/view/25554/23429>
- Partono, P., Wardhani, H. N., Setyowati, N. I., Tsalitsa, A., & Putri, S. N. (2021). Strategy to Improve 4C Competence (Critical Thinking, Creativity, Communication, & Collaborative). *Journal of Educational Science Research*, 14(1), 41–52. <https://doi.org/10.21831/jpipfip.v14i1>.
- Purwanto, A., Asbari, M., Fahlevi, M., Mufid, A., Agistiawati, E., Cahyono, Y., & Suryani, P. (2020). Impact of Work From Home (WFH) on Indonesian Teachers Performance During the Covid-19 Pandemic: An Exploratory Study. *International Journal of Advanced Science and Technology*, 29(5), 6235–6244.
- Putria, H., Maula, L. H., & Uswatun, D. A. (2020). Analysis of the Online Learning Process (DARING) During the Covid-19 Pandemic for Elementary School Teachers. *Journal of Basicedu*, 4(4), 861–872.  
<https://doi.org/10.31004/basicedu.v4i4>.
- Riskayanti, Y., (2021). Improving Critical Thinking, Communication, Collaboration and Creativity Skills Through Project Based Learning Models at SMA Negeri 1 Seteluk. *Journal of Secondary Education Innovation*, 2(1), 19–26.
- Septikasari, R., & Frasandy, R. N. (2018). 21st Century 4C Skills in Basic Education Learning. *Journal of Tarbiyah Al-Awlad*, 8, 112– 122.
- Sugiyono. (2017). Quantitative, Qualitative, and R&D Research Methods. ALFABETA.
- Suharna, H., & Abdullah, N. H. (2020). 4C Mathematics Thinking Ability in Learning in the Covid-19 Period, Especially In the New Normal Era. *Journal of Mathematics and Mathematics Education*, 9(2), 178–185.
- Sundayana, I.M. (2020). The Effectiveness of Online Learning in Health Higher Education During the Covid-19 Pandemic Ganaya: *Journal of Social Sciences And Humanities*, 3(2), 433–440.
- Supriadie, D., & Darmawan, D. (2012). Learning Communication. PT REMAJA ROSDAKARYA.
- Wahidin. (2019). The Role of Parents in Fostering Learning Motivation in Elementary School Children. *Pancar Journal*, 3(1), 232–245..
- Widiyono, A. (2020). Efektifitas Perkuliahan Daring (Online) pada Mahasiswa PGSD di Saat Pandemi Covid 19. *Jurnal Pendidikan*, 8(2), 169–177.  
<https://doi.org/10.36232/pendidikan.v8i2.458>
- Widiyono, A. (2020). Effectiveness of Online Lectures for PGSD Students during the Covid 19 Pandemic. *Journal of Education*, 8(2), 169–177.  
<https://doi.org/10.36232/education.v8i2.458>