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
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
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# Student Learning Independence through Blended Learning Flipped Classroom type during the Covid-19 Pandemic

Yulia Dewi Puspitasari<sup>1\*</sup>, Imega Syahlita Dewi<sup>2</sup>

<sup>1,2</sup> Science Education, STKIP PGRI Nganjuk, East Java, Indonesia

\* Corresponding author:

Email: yuliadewi@stkipnganjuk.ac.id

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## **Abstract.**

*This study aims to describe the learning independence of 3rd semester students Academic 2021-2022 through the Flipped Classroom type Blended Learning learning model in the time of the Covid-19 pandemic. This research is a descriptive quantitative research which is analyzed by using a percentage. Data were collected using a questionnaire in the form of statements and scoring using a Likert scale. The results of the study show the percentage of independent learning outcomes from the 6 indicators are: 1) independence from other people gain a percentage of 91,27% with a very good category, 2) have confidence self-acquisition percentage is 90,18% with very good category, 3) behaves in acquisition discipline the percentage is 89,45% with good category, 4) have a sense of responsibility to get the percentage 94,18% with very good category, 5) behave based on own initiative gain percentage 92,36% with very good category, 6) do self-control to gain percentage 92% with very good category. Overall, student learning independence through the Flipped Classroom type Blended Learning learning model obtained a percentage of 91,57% with very good category.*

**Keywords:** *student learning independence, blended learning flipped classroom, covid-19 pandemic*

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## **I. INTRODUCTION**

Since December 31, 2019, the World Health Organization (WHO) has faced a similar case pneumonia in the city of Wuhan, China caused by the emergence of the corona virus or other called by many people Covid-19 (Corona Virus Disease- 2019) [11]. WHO then declared a Global Health Emergency and declared Covid-19 as outbreak/pandemic on March 12, 2020. This virus has the characteristics of spreading high, so that it quickly became an epidemic all over the world, including Indonesia which is counted as the fourth most populous country in the world. The start of covid-19 appeared in Indonesia was the first case which was later announced by President Joko Widodo is right on March 2, 2020 [5] and is rapidly growing until the government issued Government Regulation (PP) No. 21 Year 2020 for accelerating the control of covid-19 through the implementation of large-scale social restrictions, and also issued Presidential Regulation no. 11 of 2020 which regulates covid-19 is a cause of public health emergency. The Indonesian government has implemented several

policies to suppress the increase in cases of covid-19 that affect many areas of life, including in the field of education.

In the context of virus prevention in the educational environment, the Ministry of Education and Culture makes policies that are contained in several Circulars, namely: first, prevention and treatment within the Ministry of Education and Culture (Letter Circular Number 2 of 2020), the second is prevention in the Education Unit (Circular Number 3 of 2020), the third is Educational policies in the emergency period of the spread of the corona virus disease-19 (Circular Number 4 of 2020) [4]. Policies that have been issued by the Ministry of Education and Culture through these Circulars, one of which contains: directions about the learning process at home which is a must/obligation for the perpetrator education to simultaneously/on a large scale conduct distance learning [14]. During the COVID-19 pandemic, almost the whole world is carrying out lessons online simultaneously [7] Along with the circular from the Ministry of Education and Culture regarding distance learning, the perpetrators Education must adapt to carry out the learning habits that were originally carried out face-to-face/offline must carry out the online/online learning process as a impact of the spread of the COVID-19 virus. College/school leaders forced by circumstances to immediately make decisions or study from home rules as a response to the Circular issued by the Ministry of Education and Culture.

When Covid-19 emergency situation as it is now, STKIP PGRI Nganjuk responds to the Circular issued by the Ministry of Education and Culture with the enactment of online learning rules for all courses without exception by giving Lecturers the freedom to using online applications that make it easier for students to access material, access tasks, and complete tasks independently. This is also related to student learning independence as a prerequisite in distance learning [12] in the midst of the covid-19 pandemic that doesn't give the perpetrators any other choice education other than distance learning. Independent learning is a sense of responsibility responsibility that a person has to achieve goals, what is desired, and the learning process of their own accord [8]. An independent learning process is important for attention and instilled in students so that they are able to be responsible for their own learning process [16]. The distance/online learning implemented at STKIP PGRI Nganjuk also demands competence of education actors, especially lecturers to choose the use of models in suitable learning so that students also adapt in the distance learning process away/online while still paying attention to the independence of students in learning.

Model This learning is expected to help lecturers convey material to students even without meeting face to face. One of them is the learning model Blended Learning that can improve students' ability to learn independently independently [8]. According to [10] learning based on Blended Learning is a combination of offline learning delivery and online learning online using technology. This learning model combines technology-based learning [3] where progress Information technology has

influenced aspects of life, including education [6]. Along with the demands to keep learning even when facing a pandemic, Blended Learning can be applied using the Flipped Classroom type. This too adjust to the learning from home policy that has been set by the government. The Flipped Classroom type is the concept of delivering material which is usually done in class replaced by delivering material at home, and vice versa [13]. Type Flipped-Classroom is a material delivery activity, one of which is through delivery of material through learning videos [15]. In its application Flipped Classroom types can be integrated with technology to implement online learning at home.

In connection with this, the development of communication and information technology provides broad opportunities in the world of education to support the online learning process using several applications including: whatsapp, telegram, zoom meeting, google classroom, google meet, teacher room and other applications. The learning speed of each student is not the same, Flipped Classroom can realized one of them with learning videos which in its implementation can repeated or played many times by students so that they can adjust to the student learning understanding. Students can also strengthen their understanding by searching for the knowledge they need by staying under direction lecturer. Research conducted by [9] theoretically shows that Flipped Classroom has the opportunity to support the learning process Science. This of course can make a positive contribution considering Science studied at all levels of education from elementary to tertiary levels [1]. Based on the things that have been described previously, one of the models learning that can realize student independence is a learning model Blended Learning type Flipped Classroom. Therefore, researchers are interested in applying the model Flipped Classroom type Blended Learning in Applied Scientific courses 1 at STKIP PGRI Nganjuk during the Covid-19 pandemic to find out independence students in learning.

## II. METHODS

This research was carried out at STKIP PGRI Nganjuk in the tirth semester of the academic year 2020/2021. This research is descriptive quantitative research which is then analyzed using the percentage in the distribution of the questionnaire during the 1st applied Science lecture that was carried out during the covid-19 pandemic. The questionnaire is prepared based on indicators of learning independence students a number of 6 indicators, then compiled positive statement items that must be filled in or responded to by students. The statement items are arranged in 5 items each statements in each indicator, so there are 30 positive statements that must be filled in or responded to by students.

According to Arikunto [16] processing questionnaire data (positive statements) through the following stages: first, checking and checking the suitability between the completeness of the amount questionnaires, questionnaires distributed, as well as data collected, both choose or do selection of questionnaires that meet the requirements

(questions answered by respondents according to instructions for filling), the three scoring using a Likert scale. The results of the questionnaire scoring has been filled in by the respondent according to the instructions for filling it will be analyzed to get the final conclusion of the research process carried out.

**Tabel 1.** Answer Choice Score

Score	Answer Choice
1	Strongly Disagree
2	Do not agree
3	Disagree
4	Agree
5	Strongly agree

The formula for analyzing the response to student independence in learning through The Flipped Classroom Type Blended Learning learning model is as follows:

$$\% \text{ actual score} = \frac{\text{Actual Score}}{\text{Ideal Score}} \times 100\%$$

Information:

1. The actual score is the respondent's score on the given questionnaire.
2. The ideal score is the highest score with the assumption that the respondent chooses the highest score.

The percentage category of the actual score against the ideal score is in the following table:

**Table 2.** Learning Process Criteria [10]

Number of Students	Category
90%-100%	Very Good
80%-89.99%	Good
65%-79.99%	Pretty Good
55%-64.99%	Not Good
54.99%	Very Poor

### III. RESULT AND DISCUSSION

The results of the research on student learning independence were analyzed by looking at the results of the responses students to the questionnaire that has been given based on indicators of learning independence developed by [2], namely: first, it does not depend on to others, the second has self-confidence, the third is discipline in behavior, fourth has a sense of responsibility, fifth has his own initiative in doing something, and the sixth is able to exercise self-control. Based on these six indicators, the researcher made a questionnaire in the form of a statement with each indicator contained 5 items positive statements so that all positive statements total 30 items. Score data the calculation of each indicator is as follows:

**Table 3.** Analysis of Student Learning Independence

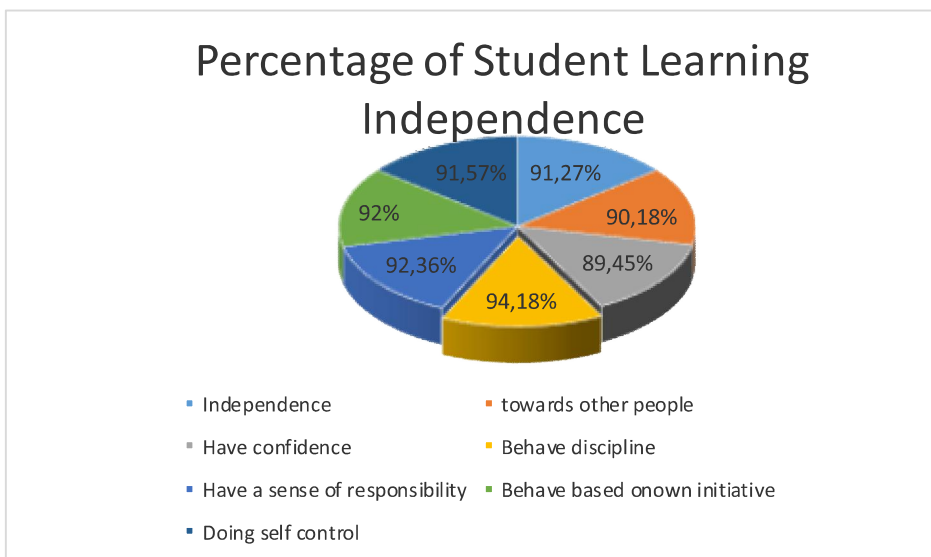
No	Indicator	No. Item Statement	Actual Score	Ideal Score	Percent	Category
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1	Independence towards other people	1-5	275	251	91,27%	Very good
2	Have confidence	6-10	275	248	90,18%	Very good
3	Behave discipline	11-15	275	246	89,45%	good
4	Have a sense of responsibility	16-20	275	259	94,18%	Very Good
5	Behave based on own initiative	21-25	275	254	92,36%	Very good
6	Doing self control	26-30	275	253	92%	Very good
	Total Amount	30	1650	1511	91,57%	Very good

From the results of the study, it can be seen that the entire number of respondents of Semester III The Scientific Education Study Program of STKIP PGRI Nganjuk obtained a total of respondents' answers from each indicator of student learning independence when applied learning mode Blended Learning type Flipped Classroom is 91.57% with very good category. From the results of the data after the research process, the researchers conducted an analysis of the results the research on each indicator and analysis of the overall results indicators to determine student independence in learning with learning models Blended Learning type Flipped Classroom. The results of the data analysis above (the first indicator to sixth indicator) can be presented in the following diagram:

**Fig 1.** Percentage of Student Learning Independence



The results of the analysis from Figure 1. show that the first indicator is independence from others the percentage gain shows 91.27% appropriate very good category. Seen the fifth semester students of Science Education Study Program STKIP PGRI Nganjuk for the Academic Year 2021-2022 has the independence not to depend on others. In the Flipped type Blended Learning learning process Classroom is known that students can communicate with lecturers through the network stable internet, able to overcome his own difficulties and able to understand material individually.

independence from others is needed by students to build their own concepts or materials they learn [8].

The results of the analysis from Figure 1. show that the second indicator has the percentage gain confidence shows 90.18% according to the very good category. Seen the fifth semester students of the Science Education Study Program, STKIP PGRI Nganjuk Academic Year 2021-2022 has independence in self-confidence for example do lecture questions without being asked by the lecturer, believe in your own answers although different from friends, confident that they can master the material, do assignments own abilities, and confident in expressing opinions through models Blended Learning type Flipped Classroom. The results of the analysis in Figure 1. show that the third indicator is behaving discipline gain percentage of 89.45% with good category. On this indicator the percentage does not meet the criteria very well because some students do not agree there is a study schedule that they make themselves, but their discipline is quite high in following the learning process through the Blended Learning type learning model Flipped Classroom and able to adapt to the rules imposed by the lecturer during the learning process.

The results of the analysis in Figure 1. show that the fourth indicator, namely having a sense of responsibility for the acquisition of a percentage of 94.18% according to the very good category. Seen the fifth semester students of the Science Education Study Program, STKIP PGRI Nganjuk The 2021-2022 Academic Year has an independent sense of responsibility, for example doing tasks as best as possible, submit assignments on time, be responsible for learning success, being directly involved in solving problems given by the lecturer, and serious in following the learning process. The results of the analysis in Figure 1. show that the fifth indicator is behaving based on their own initiative, the percentage gain is 92.36% according to the very good category. Seen the fifth semester students of the Science Education Study Program, STKIP PGRI Nganjuk Academic Year 2021-2022 has independence in behaving based on initiative themselves, for example learning on their own accord, repeating the material presented by the teacher lecturers, make a summary of the material to facilitate learning, and improve understanding the material by looking for references in libraries, the internet and others. according to Brookfield [8] self-initiative is needed in determining direction, plans, sources and decisions in the learning process.

The results of the analysis in Figure 1. show that in the sixth indicator, namely doing self control the percentage gain is 92% according to the very good category. Look student semester V Science Education Study Program STKIP PGRI Nganjuk Academic Year 2021-2022 have independence in self-control, for example students are able to conduct a self-evaluation related to learning or learning outcomes that obtained during the learning process. Based on the results of the analysis of all indicators of student independence in learning shows that Semester V students of STKIP Science Education Study Program PGRI Nganjuk through the application of the Flipped Type

Blended Learning learning model Classroom is at a percentage of 91.57% according to the very good category. From these results, The Flipped Classroom type Blended Learning learning model can be used as one of the alternative in the creative and innovative learning process to be carried out by Lecturers during the Covid-19 pandemic. This research was also carried out on mathematical material, namely: Applied Science 1 which shows results in accordance with Hayati's research [9] that theoretically shows Flipped Classroom has a chance to support Science learning process which is considered difficult by many students [1].

#### IV. CONCLUSION

From the results of the discussion about the learning independence of students in semester V of the Study Program Science Education STKIP PGRI Nganjuk Academic Year 2021-2022 through the model Blended Learning type Flipped Classroom obtained the percentage of independence results learning from the 6 indicators are: 1) not depending on other people meet the very category good with the acquisition of a percentage of 91.27%, 2) have the confidence to meet very good category with a percentage of 90.18%, 3) disciplined behavior meets the good category with a percentage of 89.45%, 4) have a sense of responsibility meet the very good category with a percentage of 94.18%, 5) behave on their own initiative meets the criteria very good with a percentage of 92.36%, 6) self-control meets the very category good with a percentage of 92%. Overall, the learning independence of Semester III . students STKIP PGRI Nganjuk Science Education Study Program for the Academic Year 2021-2022 through the Blended Learning learning model, the Flipped Classroom type obtains a percentage of 91.57% according to the very good category.

#### REFERENCES

- [1] Aini, K., Prihandoko, A. C., Yuniar, D., & Faozi, A. K. A. *The students' mathematical communication skill on caring community-based learning cycle 5E. In Journal of Physics: Conference Series Vol. 1538, No. 1, 2020.* p. 012075. IOP Publishing.  
<https://doi.org/10.1088/1742-6596/1538/1/012075>
- [2] Al Aslamiyah, T., Setyosari, P., & Praherdhiono, H. (2019). *Blended Learning Dan Kemandirian Belajar Mahasiswa Teknologi Pendidikan. Jurnal Kajian Teknologi Pendidikan, 2(2)*, 2019, pp.109–114.  
<https://doi.org/10.17977/um038v2i22019p109>
- [3] Anggraeni, C. S., Hidayati, N., Farisia, H., & Khoirulliaty, K. *Trend Pola Asuh Orang Tua dalam Pendampingan Model Pembelajaran Blended Learning pada Masa Pandemi Covid-19. JECED: Journal of Early Childhood Education and Development, 2(2)*, pp. 97– 108, 2020.  
<https://doi.org/10.15642/jeced.v2i2.915>
- [4] Arifa, F. N. *Tantangan Pelaksanaan Kebijakan Belajar Dari Rumah Dalam Masa Darurat Covid-19. Info Singkat; Kajian Singkat Terhadap Isu Aktual Dan Strategis, XII(7/I)*, 6. 2020.

- [http://berkas.dpr.go.id/puslit/files/info\\_singkat/Info\\_Singkat-XII-7-I-P3DI-April-2020-1953.pdf](http://berkas.dpr.go.id/puslit/files/info_singkat/Info_Singkat-XII-7-I-P3DI-April-2020-1953.pdf)
- [5] Djalante, R., Lassa, J., Setiamarga, D., Sudjatma, A., Indrawan, M., Haryanto, B., Mahfud, C., Sinapoy, M. S., Djalante, S., Rafliana, I., Gunawan, L. A., Surtiari, G. A. K., & Warsilah, H. *Review and analysis of current responses to COVID-19 in Indonesia: Period of January to March 2020*. **Progress in Disaster Science**, **6**, pp. 1–9. 2020. <https://doi.org/10.1016/j.pdisas.2020.100091>
- [6] Faozi, A. K. A., Hobri, Fatekurohman, M., Aini, K., & Yuniar, D. *Student's problemsolving abilities in Project Based Learning (PjBL) based on Learning Community (LC)*. **Journal of Physics: Conference Series**, **1538**(1). 2020. <https://doi.org/10.1088/1742-6596/1538/1/012070>
- [7] Goldschmidt, K. *The COVID-19 Pandemic: Technology use to Support the Wellbeing of Children*. **Journal of Pediatric Nursing**, **53**, 88–90. 2020. <https://doi.org/10.1016/j.pedn.2020.04.013>
- [8] Hamka, D., & Vilmala, B. K. *Pengembangan Perangkat Pembelajaran Blended Learning Melalui Aplikasi Google Classroom Untuk Peningkatan Kemandirian Belajar Mahasiswa*. **Journal of Education Informatic Technology and Science (JeITS)**, **1**(2), 2019, pp.145–154.
- [9] Hayati, R. *Flipped Classroom dalam Pembelajaran Matematika: Sebuah Kajian Teoritis*. **Prosiding Sendika**, **4**(1), 2018, pp. 1-9.
- [10] Kurniawati, M., Santanapurba, H., & Kusumawati, E. *Penerapan Blended Learning Menggunakan Model Flipped Classroom Berbantuan Google Classroom Dalam Pembelajaran Matematika Smp*. **EDU-MAT: Jurnal Pendidikan Matematika**, **7**(1), 2019, pp. 8–19. <https://doi.org/10.20527/edumat.v7i1.6827>
- [11] M Lee, A. *Wuhan novel coronavirus (COVID-19): why global control is challenging?* **Public Health**, **179**, 2019, pp 1–2. <https://doi.org/10.1016/j.puhe.2020.02.001>
- [12] Makur, A. P., Jehadus, E., Fedi, S., Jelatu, S., Murni, V., & Raga, P. *Kemandirian Belajar Mahasiswa dalam Pembelajaran Jarak Jauh Selama Masa Pandemi*. **Mosharafa: Jurnal Pendidikan Matematika**, **10**(1), 2021, pp.1-12.
- [13] Saputra, M. E. A., & Mujib, M. *Efektivitas Model Flipped Classroom menggunakan Video Pembelajaran Matematika terhadap Pemahaman Konsep*. **Desimal: Jurnal Matematika**, **1**(2), 2018, pp.173. <https://doi.org/10.24042/djm.v1i2.2389>
- [14] Sun, L., Tang, Y., & Zuo, W. *Coronavirus pushes education online*. **Nature Materials**, **19**(6), 2020, pp. 687-687. <https://doi.org/10.1038/s41563-020-0678-8>
- [15] Sya'roni, A. R., Inawati, P. A., & Guswanto, E. *Students' creative thinking skill in the flipped classroom-blended learning of Science based on lesson study for learning community*. In **Journal of Physics: Conference Series 1563**, 1, 2020, p. 012046). IOP Publishing. <https://doi.org/10.1088/1742-6596/1563/1/012046>
- [16] Wahyuni, R. *Kemandirian Belajar Mahasiswa Melalui Blended*. **Jurnal Ilmiah Pendidikan Matematika AL-QALASADI**, **3**(2), 2019, pp. 76–81.