



# THE EFFECT OF PRIOR KNOWLEDGE ON STUDENTS LEARNING MOTIVATION ON BASIC SCIENCE CONCEPTS IN THE PGSD DEPARTMENT, FACULTY OF EDUCATION, GORONTALO STATE OF UNIVERSITY DURING THE COVID 19 PANDEMIC

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Article history:	Abstract:
<b>Received:</b> 4 <sup>th</sup> March 2022 <b>Accepted:</b> 6 <sup>th</sup> April 2022 <b>Published:</b> 10 <sup>th</sup> May 2022	This study aims to determine the effect of prior knowledge on students learning motivation on basic science concepts in the PGSD Department, Faculty of Education, Universitas Negeri Gorontalo during the covid 19 pandemic. This study uses survey methods, and data collection techniques use tests and questionnaires. Analysis of the data using descriptive analysis and inferential analysis with a path analysis approach. The population is all 4th-semester students in the Department of S1 Elementary School Teacher Education with 202 students, and the sample is 130 students. The study results found the effect of initial knowledge on students' learning motivation on basic science concepts in the Department of Elementary School Teacher Education, Faculty of Education, Universitas Negeri Gorontalo during the covid 19 pandemic. This shows that students' learning motivation is influenced or determined by the initial knowledge, meaning that the higher the knowledge. The initial knowledge that students have, the higher their learning motivation. The study results show that initial knowledge has a positive effect on student motivation to learn during the covid 19 pandemic.

**Keywords:** Prior Knowledge; Motivation to Learn; Covid 19 Pandemic Period

## INTRODUCTION

The learning process is inseparable from teaching and learning activities; the collaboration between lecturers and students primarily determines teaching and learning activities. Lecturers are required to present lecture material optimally. Therefore it is necessary to motivate students to learn in the PGSD Department. The learning motivation of PGSD students in learning science is very diverse; some are indifferent, some are focused, some are playing; besides that, some are eager to learn science.

According to Sardiman (2016: 73), motivation can be interpreted as a driving force that has become active, or a series of efforts to provide certain conditions, so that a person wants and wants to do something, and if he does not like it, it will try to negate or avoid feelings. I wouldn't say I like it. So that motivation can be stimulated by external factors, but that motivation is to grow within a person. According to Slavin (2017: 98), motivation is the most critical element of effective teaching. Motivation is an internal process that activates, guides, and maintains behavior over time.

In learning, motivation is needed in carrying out science learning activities to achieve learning objectives. During the COVID-19 pandemic, students learn because their mental strength drives them, mental strength in the form of desire, attention, will, or ideals. It is mental strength that drives learning into motivation. In motivation contains the meaning of desires, expectations, needs, goals, targets, and incentives. The need occurs when students feel there is an imbalance between what students have and what students expect. Based on observations, students think that their science learning outcomes are low, which is believed to be due to the initial knowledge of PGSD students who come from various majors, both from SMK, SMA. Liliarsari and Rahmatan (2012) state that prior knowledge is a collection of personal knowledge and experiences gained throughout their life journey and which he will bring to a new learning experience. Zakaria and Yusuf (2009) state that prior knowledge plays a vital role in problem-solving abilities. This means that students will have high problem-solving skills if they realize prior solid knowledge.

To obtain good learning outcomes, students change their learning methods with a goal-oriented drive to get PGSD student learning outcomes in the introductory science concept course, and student motivation is needed. During the COVID-19 pandemic, motivation needs to be supported by several factors, both internal to the students

themselves and externally in the form of encouragement from outside, including parents, internet facilities and Information Technology media, as well as laboratories, reading sources in the form of books, journals, magazines, and others. Others, praise, *rewards*, and other things related to increase learning motivation.

The creation of good student learning motivation is very supportive of the ongoing teaching and learning process. In general, the success of the learning process is primarily determined by several components, namely, those from students, lecturers, infrastructure, and curriculum. These components will be interrelated with one another. Students without motivation will not have a learning process, as well as students without other features will have no learning process.

**METHOD**

This research was conducted in the Department of Elementary School Teacher Education (PGSD) Faculty of Education, State University of Gorontalo. The sample in this study was second-year students with 202 students, and 130 students as examples were selected using a sampling process. This research was conducted in the form of a survey. The variables in this study are the independent variable (exogenous) and the dependent variable (endogenous). The exogenous variable is initial knowledge (X), while the endogenous variable is student learning motivation (Y). The data analysis used is descriptive analysis and inferential analysis. Descriptive research is done by presenting data through frequency tables, histograms, averages, and standard deviations.

Meanwhile, inferential analysis was conducted to test the hypothesis. Hypothesis analysis was carried out through regression and correlational research. Before the hypothesis was tested, the normality of the data was tested using Lilies. Path statistical analysis was provided for hypothesis testing.

**RESULTS AND DISCUSSION**

The description of the data presented in this section includes learning outcomes data (Y) as an endogenous variable, prior knowledge (X)

**Table 1 Description of Data for Each Variable**

<b>Research variable</b>	<b>Number of Items</b>	<b>theoretical Minimum</b>	<b>Maximum</b>	<b>Empirical Minimum</b>	<b>Maximum</b>
Prior Knowledge (X)	25	25	125	20	84
Learning Motivation (Y)	27	27	135	47	94

Based on the data obtained in the field, then statistically processed, it was found that the initial knowledge had an average value ( *mean* ) of = 77.47 with a median ( *me* ) = 79.5 and a mode ( *mo* ) = 81.5. The frequency distribution is poured into table 4.3. 7 (seven) classes obtain the frequency distribution list with a minimum score of 48 and a maximum score of 100, so the score range is 52, and the results in table 4.3 are as follows

**Table 1 List of Frequency Distributions of Initial Knowledge Score**

<b>No.</b>	<b>Interval Class</b>	<b>f<sub>i</sub></b>	<b>f<sub>relative</sub> (%)</b>	<b>x</b>	<b>fx</b>
1.	48-55	10	7.69	51.5	515
2.	56-63	8	6.15	59.5	476
3.	64-71	12	9.23	67.5	810
4.	72-79	35	26.92	75.5	2642.5
5.	80-87	49	37.69	83.5	4091.5
6.	88-95	7	5.38	91.5	640.5
7.	96-103	9	6.92	99.5	895.5
□		130	100		10071

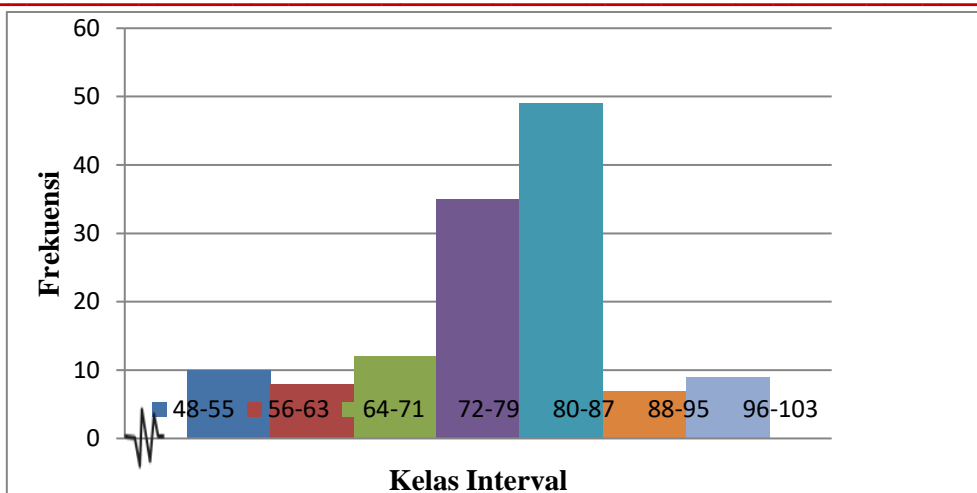


Figure 1 Initial Knowledge Histogram

Table 1 shows that the frequency distribution of the initial knowledge variable is a left-skewed curve (negative skewness). This is indicated by the presence of a smaller mean value and a smaller median than the mode. Furthermore, it can be seen that 35 respondents or (26.92%) are in the average group, 61 respondents or (23.07%) are above the average group, and 34 respondents or (49.99%) are below the average group. Average. The distribution of learning outcomes variable scores is displayed on the histogram, as shown in Figure 1

Based on the data obtained in the field, then statistically processed, it was found that the student's learning motivation during the pandemic had an average value (*mean*) of = 72.10 with a median (*me*) = 73.05 and a mode (*mo*) = 82.23. The frequency distribution is poured into the frequency table, obtained 6 (six) classes with a minimum score of 47 and a maximum score of 94, so the score range is 47, and the results are shown in Table 2

Based on the data obtained in the field, then statistically processed, it was found that student learning motivation during the pandemic had an average value (*mean*) of = 44.18, with a median (*me*) = 40.83 and a mode (*mo*) = 34. The frequency distribution is poured into the frequency table; 9 (nine) classes are obtained with a minimum score of 20 and a maximum score of 84, so the score range is 64, and the results are shown in Table 2.

Table 2. List of Frequency Distribution of Student Learning Motivation Data

No.	Interval Class	$f_i$	$f$ relative (%)	$x_i$	$f_i \cdot x_i$
1.	20-27	17	13.08	23.5	399.5
2.	28-35	30	23.08	31.5	945
3.	36-43	27	20.77	39.5	1066.5
4.	44-51	18	13.85	47.5	855
5.	52-59	13	10.00	55.5	721.5
6.	60-67	13	10.00	63.5	825.5
7.	68-75	5	3.85	71.5	357.5
8.	76-83	5	3.85	79.5	397.5
9.	84-91	2	1.54	87.5	175
□		130	100		5743

Table 2 shows that the frequency distribution of students' learning motivation variables during the pandemic is a right-skewed curve (positive bias). This is indicated by a more considerable mean value and a larger median than the mode. Furthermore, it can be seen that 13 respondents or (10%) are in the average group, 41 respondents or (70.78%) are above the average group, and 76 respondents or (19.22%) are below the average group. Flat.

The distribution of the student learning motivation variable score during the pandemic is displayed on the histogram in Figure 2.

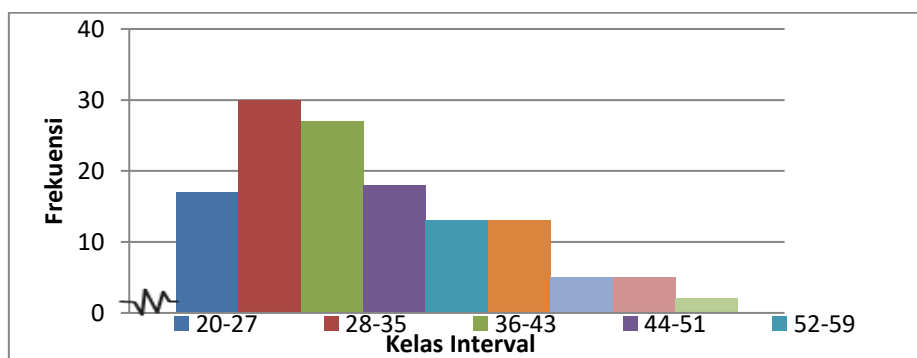


Figure 2 Histogram of Learning Motivation

### CONCLUSIONS

Based on the results of data analysis and discussion previously stated, the conclusions of the study are as follows:

There is a positive direct effect of initial knowledge on student learning motivation during the basic science concept course pandemic. Initial ability can be strengthened by improving lecture activities in the form of expertise and student experiences gained before taking their lectures, which will lead to a science learning experience. Initial knowledge can process learning so that students' learning motivation during a pandemic can be increased using the desire and desire to carry out activities, the encouragement and need to carry out activities, the hopes and aspirations, self-respect and respect, the existence of a good environment, and some activities attract students in the science learning process.

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