The Relationship Between Logical Thinking And The Semester Achievement Index Of Students Of Penjas Pgri Jombang University

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***Abstract**.*

Logical thinking can show a mature attitude to help choose to solve problems provided by educators for students. Because logical thinking solves problems intelligently, swiftly, deftly, confidently, and skillfully. Logical thinking can help students' academic and non-academic achievements. This study aims to determine the relationship between logical thinking and the semester achievement index of PGRI Jombang University students. In this study, researchers only want to know the relationship between variable X and variable Y, how to distribute questionnaires to respondents. Data collection techniques take data with questionnaires and documentation. The data analysis technique uses a normality test with the results of logical thinking scores of 0.883 > 0.05 and Semester Achievement Index of 0.001 < 0.05. It can be concluded that the logical thinking variable is normally distributed while the semester achievement index variable is not normally distributed, a linear test with b resultsbased on the analysis obtained F calculate 0.970 with a signification level of 0.539. This proves that F count 0.970 < F table 3.9 1. Because the calculated F value is smaller than the F table, it can be concluded that there is a significant linear relationship between the logical thinking variable (X) and the semester achievement index variable (Y), and the correlation test with the results Based on the test results shows a correlation value of -0.055. This indicates that there is no relationship between logical thinking and student semester achievement index.Based on the results of research on the relationship of logical thinking to the semester achievement index of Physical Education Students at PGRI Jombang University by looking at the results of data analysis indicates that there is no relationship between logical thinking and the semester achievement index of high, medium, and low ability students.

Keywords: *Logical Thinking, Pgri Jombang University and Semester Achievement Index.*

I.   INTRODUCTION

Higher education is a place to carry out the educational process to prepare students to acquire knowledge and skills after completing the lecture process taken. In the world of education, there is a college level, one of which is physical education. Physical education is physical education, basically the material taught is education through movement activities in order to achieve the overall development of students [1].From this explanation that physical education is a movement activity carried out in order to achieve the development of students as a whole.Logical thinking can show a mature attitude to help choose to solve problems provided by educators for students. Because logical thinking solves problems intelligently, swiftly, deftly, confidently, and skillfully. Logical thinking can also help students to encourage their academic and non-academic achievements. Achievements will show feedback from everything that includes abilities, expertise, shortcomings and potentials possessed by a person [2].Student learning achievement can be assessed from the transcript value which contains the semester achievement index and the cumulative achievement index which is based on the student's mastery of knowledge. This opinion is strengthened by [3] revealed that learning achievement is the result of potential abilities possessed by a student which can be seen from behavior in the form of mastery of knowledge, thinking and motor skills. So, students' mastery of certain lessons can be seen from achievements or learning outcomes through learning achievement tests / exams.Student achievement can be seen from the semester achievement index (IPS) or cumulative achievement index, students who obtain a high semester achievement index indicate that the student is able to follow lectures well and vice versa, the lower the semester achievement index obtained indicates that the student is not able to follow lectures well.

Basically, there are many benefits that students get by obtaining a good semester achievement index, including accelerating the college period, increasing the cumulative achievement index and being able to get

scholarships. Students can add credits in accordance with GPA and their requirements from DPA (academic advisory lecturers) social studies scores can help students to become great people because they can prove to be smart, skilled, and educated students of the nation, critical students,In this study, researchers were encouraged to examine the relationship between logical thinking and learning achievement in physical education students at PGRI Jombang University. Researchers took samples of physical education students to determine the level of logical thinking of physical education students with learning achievement so that the researchers took the title of the research on the correlation of the relationship between student logical thinking and the Semester Achievement Index in physical education students at PGRI Jombang University.In order for this research to run smoothly as expected and researchers focus on the problem, the author limits the problem. The discussion in this study only discusses the relationship between logical thinking and the Semester Achievement Index in physical education students of the 2019, 2020, 2021, and 2022 PGRI Jombang Universiity. Is there a relationship between logical thinking and Semester Achievement Index in physical education students of PGRI Jombang University? In accordance with the background of the problem above, to find out the relationship between logical thinking and the Semester Achievement Index of Physical Education students of PGRI Jombang University.

II.   METHODS

This study uses a type of correlational research, namely correlational research, a study that relates one or more independent variables with one dependent variable without any attempt to influence the variable [4] using a non-experimental quantitative design. The definition of population is the entire individual or object intended to be studied which will later be subject to generalization [5] from the explanation above that in this study the population is all students of PGRI Jombang University who are still active f in lectures 295 students. Sample is a small number of individuals who are made representatives in research [4] From the explanation above, researchers take samples by *quota sampling is a sampling* technique by determining in advance the kouta or number of individuals to be studied, without paying attention to anyone who will be studied. [4] starting from the class of 2019, 2020, 2021, 2022. It consists of the class of 2019 numbering 43, the class of 2020 numbering 41, the 2021 installments numbering 28, and for the class of 2022 numbering 8. So that the total number of respondents is 130 respondents.

Related to data collection, the following will be discussed five ways of data collection, namely (1) tests and measurements (2) interviews (3) observations (4) questionnaires, and (5) documentation [4] In this study researchers took data with questionnaires and documentation, questionnaires are a series of questions used to reveal information, both regarding facts or opinions [4] whereas, the notion of documentation is often misinterpreted with the use of the term document in the context of expertise, which touches with photographs and portraits [4] In this study researchers took data with questionnaires and documentation, questionnaires are a series of questions used to reveal information, both regarding facts and opinions [4] Meanwhile, the notion of documentation is often misinterpreted with the use of the term document in the context of expertise, which touches with photographs and portraits [4] Researchers examine written records or other documents to obtain data on student achievement.

III.   RESULT AND DISCUSSION
RESULT

Before being described to determine the relationship between the independent variable and the dependent variable used in the study, a description of the level of logical thinking can first be described in the hope that a clear picture can be obtained to describe the responses of each respondent. Research variable data need to be categorized by step according to (Arikunto 2012, 2011) as follows:

   a. High group, all respondents who have a score as much as the average score plus 1 (+1) standard deviation ($X \geq Mi + 1\ SDi$)
   b. Medium group, all respondents who have a score between the average score minus 1 standard deviation and the average score plus 1 standard deviation (between ($Mi - 1SDi$) $\leq X < (Mi + SDi)$

c. Less group, all respondents who have a score lower than the average score of minus 1 standard deviation (X < Mi- 1 SDi) While the ideal Mean price (Mi) and ideal Standard Deviation (SDi)

Table 4.1. Category Level

Category	Formula	Value Interval
Tall	$(X \geq Mi + 1\ SDi)$	$X \geq 86$
Normal	$(Mi - 1SDi) \leq X < (Mi + SDi)$	$60 \leq X < 86$
Low	$(X < Mi-1\ SDi)$	$X < 60$

Remarks : Mi = (72.87)

SDi = (12.68)

Table 4.2. Logical Thinking Category Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	19	14,6	14,6	14,6
	Normal	93	71,5	71,5	86,2
	Tall	18	13,8	13,8	100,0
	Total	130	100,0	100,0	

Based on the analysis of the categories above, it shows that as many as 18 students are in the high category with a percentage of 13.8%, then as many as 93 students are in the medium category with a percentage of 71.5% and as many as 19 students are in the low category with a percentage of 14.6%. Thus, it can be concluded that the tendency of students' logical thinking is in the medium category, which is as many as 93 students from a total sample of 130 students.

DISCUSSION

Based on the results of research on the relationship of logical thinking to the semester achievement index of Physical Education Students at PGRI Jombang University by looking at the results of data analysis indicates that there is no relationship between logical thinking and semester achievement index of high, medium, and low ability students, removing barriers to logical thinking power. Unhindered logical expression is the main and first step to improve students' logical thinking power. The second step of the lecturer should be to introduce the origins of the logical process so that students realize that they are capable of logical thinking.

The third step, lecturers should explain strategies for logical thinking to be effective, such as brainstorming, mind mapping, and thinking sideways so that students can apply them in the learning and thinking process. The final step is to give space to students to express their logical thinking.In addition, lecturers should stimulate the formation of students' logical thinking processes through positive habits of students at school such as being open to expressing something, daring to try new things, liking various challenges, processing something, being imaginative, and liking variety thus, if all the steps above are carried out then students' logical expression will appear. The lecturer's expectation that students not only provide good learning outcomes, but also in line with having a good level of logical thinking can be achieved.

IV.   CONCLUSION

Based on the results of research on the relationship of logical thinking to the semester achievement index of Physical Education Students at PGRI Jombang University by looking at the results of data analysis indicates that there is no relationship between logical thinking and the semester achievement index of high, medium, and low ability students.

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