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The Influence of Teaching Modules and Learning Motivation on the IPAS Learning Outcomes of Phase B Students in Grade Four of Advent Airmadidi Elementary School

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ABSTRACT

This study aims to determine the influence of teaching modules and learning motivation on students' learning outcomes in the subjects of Natural and Social Sciences. The research was conducted at Advent Airmadidi Elementary School with a sample of 83 fourth-grade students as respondents. This research used a quantitative approach with a descriptive survey method. Data on teaching modules and learning motivation variables were collected using validated and reliable questionnaires, while data on learning outcomes were obtained from the final semester's summative assessments. Data analysis techniques began with pre-requisite tests, namely tests for normality and linearity. Research hypotheses were tested using simple regression analysis for the first and second hypotheses, and multiple regressions for the third hypothesis. The research findings concluded that the categories for teaching modules and learning motivation variables were high. Through t-test calculations and significance value, it was found that there is an influence of teaching modules and learning motivation on learning outcomes significantly. Based on the analysis of F-test calculations and significance value, it was found that the multiple regression model significantly influenced teaching modules and learning motivation variables on learning outcomes. From the research results, it is concluded that to improve the learning outcomes of IPAS (Natural and Social Sciences) subjects for phase B students in grade four of Advent Airmadidi Elementary School, the utilization of teaching modules and learning motivation is necessary.

Keywords: *teaching modules, learning motivation, learning outcomes, IPAS*

INTRODUCTION

Knowledge and skills of students can be formed through their role in education, which can be found in learning activities. Various components can become an interrelated system in learning activities. These include learning assets, namely learning resources, which play an important role in designing effective learning and key indicators in assessing the success of education, namely learning outcomes, which reflect the achievement and development of students throughout the learning process that can be measured by teachers in numerical values (Uno, 2013).

Pangkey (2019) defines learning outcomes as a measure of individual success in understanding subject matter after going through the educational process. Meanwhile, Susanto (2013) states that learning outcomes will be obtained after students make efforts to understand learning material that can be measured through cognitive, affective, and psychomotor aspects. This can be seen during learning activities, where at the end of the activity an evaluation is carried out either through reflection activities, giving assignments, quizzes, questions and answers, and others.

These learning outcomes reflect the achievements of students. However, learning outcomes can decrease because the focus in learning activities is still centered on educators. In addition, learning resources have not been optimally utilized and learning activities have not been well designed and outlined in the teaching module which is a guide for teachers to guide students to complete the learning objectives (Munadi, 2013).

Amidst all the potential and efforts made, there are various other challenges faced in optimizing students' learning outcomes. Factors such as motivation, availability of learning resources and the learning approach used have an impact on the effectiveness of learning. Therefore, designing an appropriate and innovative approach in the learning process is crucial to improving students' learning outcomes. In accordance with the opinion of Mangangantung et al. (2023) who argues that learning outcomes can be improved through the right learning model.

Teaching tools in the form of teaching modules have been used in the current curriculum change, namely the Merdeka Curriculum. This is an effort made by the Ministry of Education, Culture, Research and Technology (Kemendikbudristek) after seeing various challenges in learning activities. It is necessary to restore learning by launching the Merdeka Curriculum where teachers can design a learning process that is tailored to the interests and

needs of students so that the learning context contained in the teaching module is student-centered. In line with the opinion of Rawung et al. (2021)which states that in educational institutions, students are the main users of education.

This is a new thing because it can fill the knowledge gap about teaching modules that focus on students, and contain a learning process that can motivate students and provide learning experiences to achieve certain competencies (Sangid & Muhib, 2018). Thus, this research is unique because the learning concept is oriented towards learning outcomes by considering motivational factors that influence learning effectiveness and the teaching modules designed are tailored to the interests and needs of students.

The purpose of this research is to determine the effect of teaching modules on IPAS learning outcomes, the effect of learning motivation on IPAS learning outcomes, and the effect of teaching modules and learning motivation on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School. By identifying factors that influence the effectiveness of teaching modules and learning motivation, this study can provide new insights that can improve learning design and implementation that can have a positive impact on better learning outcomes, especially in IPAS subjects.

METHOD

In this research, the correlation between variables was investigated using quantitative methods. This research aims to test the selected hypothesis by analyzing the effect of teaching modules and learning motivation on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School.

The descriptive survey method used in this research is to obtain descriptive statistical data that can provide a description of the data collected from the sample, with the aim of making generalizations. As explained by (Sugiyono, 2017) about descriptive analysis where the use of statistical techniques is carried out to provide a description of the data collected with objectivity, without any intention of drawing generalized conclusions or being applied in general.

In multiple regression testing, the dependent variable is predicted based on the independent variable (Sugiyono, 2017). Simple regression was applied to test two hypotheses, namely the effect of teaching modules (X_1) on IPAS learning outcomes (Y) and the effect of learning motivation (X_2) on IPAS learning outcomes (Y). While multiple regression was used to test the third hypothesis, namely the effect of teaching modules (X_1) and learning motivation (X_2) on IPAS learning outcomes (Y).

To obtain data, researchers collected data by distributing questionnaires (Sugiyono, 2017). The questionnaire was run by researchers to obtain data on variables (X_1) the influence of teaching modules and learning motivation (X_2). While the variable of IPAS learning outcomes (Y), researchers took data from the odd semester summative assessment results in the 2023/2024 school year.

In this research, there are independent variables, namely the influence of teaching modules (X_1), learning motivation (X_2), and the dependent variable, namely IPAS learning outcomes (Y). This study uses a regression model with three variables which can be described in the form of a research design as follows:

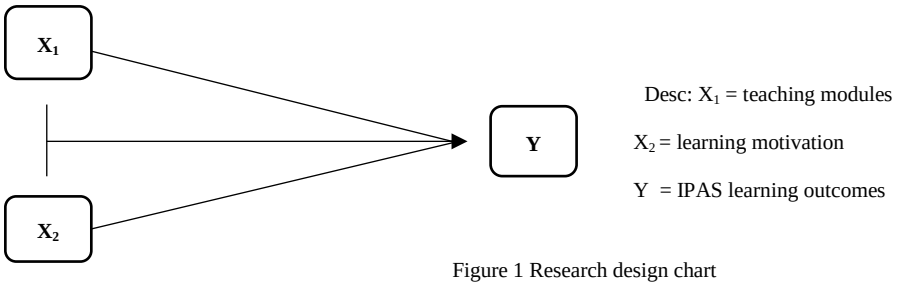

Figure 1 Research design chart

This research focuses on the scope of elementary schools. The research location was Advent Airmadidi Elementary School, North Minahasa, Province of North Sulawesi. The researchers chose phase B grade four of Advent Airmadidi Elementary School to test the effect of teaching modules and learning motivation on IPAS learning outcomes. The implementation of the research from preparation to report preparation was carried out from November 2023 to March 2024.

Sujarweni (2015) states that "population is the entire amount consisting of objects or subjects that have certain characteristics and qualities that are determined by researchers to be studied and then draw conclusions." The population in this study was not greater than 100 respondents, so the researchers took 100% of the population in all grade four classes of Advent Airmadidi Elementary School with a total of 83 respondents, in accordance with the opinion of (Umar, 2011). Therefore, the census technique refers to the use of the entire population without selecting a research sample as a unit of observation.

Table 1 Research Population and Sample

No.	Class	Total number of students

1.	IV A	30
2.	IV B	32
3.	IV C	21
	TOTAL	83

Researchers used a questionnaire as a data collection tool to analyze the effect of teaching modules and learning motivation. While the IPAS learning outcomes of students are obtained through question items that have been prepared based on the subject matter, complete with answer options so that respondents can choose the most appropriate answer from the available options..

The data collected in this research were analyzed using descriptive analysis techniques used to describe the teaching modules and learning motivation on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School. These descriptive statistics include the calculation of mode, median, mode, and standard deviation. Before starting data analysis, the analysis requirement test process is carried out first, namely the normality test to assess the distribution of data on a variable that is normally distributed or not (Umar, 2011) and the linearity test is used to determine whether there is a linear relationship between variables X and Y, or aims to test whether the model specifications used are correct or not (Ghozali, 2018).

The data were analyzed using simple regression and multiple regression statistical tests. Hypotheses 1 and 2, namely the effect between the teaching modules variable (X_1) on IPAS learning outcomes (Y), and the learning motivation variable (X_2) on IPAS learning outcomes were tested using simple regression. While hypothesis 3, namely the effect of teaching modules (X_1) and learning motivation (X_2) on IPAS learning outcomes (Y) was tested using multiple regression..

RESULTS AND DISCUSSION

1. The Influence of Teaching Modules on The IPAS Learning Outcomes of Phase B Students in Grade Four of Advent Airmadidi Elementary School

The questionnaire for the teaching module variable consists of 30 statements with a range of answer scores from 1 to 5. Scores are categorized into high, medium, and low using the method described by Azwar (2011). To see the influence of teaching modules on students' IPAS learning outcomes, researchers first analyzed the teaching module variable category to compare the utilization of each component contained in the teaching module.

The results found through this research are the average value obtained for the level of influence on the IPAS teaching module for grade four students of Advent Airmadidi Elementary School is 4.39. Researchers concluded that the level of influence of the teaching module was high because the value was above 3.67 in accordance with the calculation of data categories according to Azwar (2011).

The researchers analyzed the average value of the effect of the teaching module based on the three components included in the teaching module, namely general information obtained an average value of 4.42, the core component obtained an average value of 4.41 and the attachment obtained an average value of 4.37. Therefore, the total overall average score was 4.39. Based on the findings from the data results, it was found that the three components in the teaching module have a high level. However, of the three basic components in the teaching module, it was found that the general information component obtained the highest level compared to the other two components.

To analyze the effect of the teaching module on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School, the analysis for the coefficient of determination needs to be done because the coefficient of determination has a function to determine the percentage of influence given by the teaching module variable (X_1) on the IPAS learning outcomes variable (Y). As stated by Bahri (2018) that the coefficient of determination (r2) is a measure that evaluates the extent to which the model is able to explain variations in the dependent variable taking into account the independent variables.

The coefficient of determination (R-square) obtained based on the correlation value of the correlation/relationship (R) with the formula KP = r2 x 100% is 57%, meaning that the IPAS learning outcomes variable can be explained by the teaching module variable by 57% while the remaining 43% is influenced by other variables outside the research. The correlation between variables is declared good because the percentage is above 50%.

Based on the significance value of the coefficients table, the significance value of 0.001 is smaller than 0.05 so it can be concluded that there is an influence between the teaching module variable (X_1) on IPAS learning outcomes (Y).

The t-test is a statistical method used to test the validity of a hypothesis stating that there is no significant difference between two mean samples taken randomly from the same population (Sudijono, 2010). The t-test is used to assess whether there is an independent (partial) influence given by the independent or independent variable (X) on the dependent or dependent variable (Y), and obtained a t_count value of 2.222 > t_table 1.990 then Ho1 which states that there is no significant influence is rejected and Ha1 is accepted, which means that there is an influence of the teaching module on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School significantly.

The results of this finding are supported by previous research with the title "The Effect of Using Learning Modules on Students' Cognitive Learning Outcomes" by Fatmi et al. (2021) with the results of the research showing through the data analysis test conducted using the independent t-test with a

significant on students' cognitive learning outcomes obtained a significant 2-tailed of 0.000 < 0.05 so that Ho is rejected and Ha is accepted. Based on the test analysis, it can be concluded that there is an effect of using learning modules on students' cognitive learning outcomes.

2. The Influence of Learning Motivation on the IPAS Learning Outcomes of Phase B Students in Grade Four of Advent Airmadidi Elementary School

The questionnaire for the teaching module variable consists of 30 statements with a range of answer scores from 1 to 5. The scores are categorized into high, medium, and low using the method described by Azwar (2011).

Before looking at the influence of learning motivation on students' IPAS learning outcomes, researchers first analyzed the categories for learning motivation variables. The results found through this study are the average value obtained for the level of influence level of learning motivation in grade four students of Advent Airmadidi Elementary School is 4.01. Researchers concluded that the level of influence level of learning motivation is high because the value is above 3.67 in accordance with the calculation of data categories according to Azwar (2011).

Researchers analyzed the average value of the effect of learning motivation based on each class consisting of three classes, namely class IV A with an average value obtained of 3.63 moderate category, class IV B with an average value obtained of 4.36 high category, and class IV C with an average value obtained of 4.02 high category. The total overall average value is 4.01. Based on these data, researchers obtained data that the highest average value was class IV B.

To analyze the influence of learning motivation on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School, a coefficient of determination analysis is needed (Bahri, 2018: 192) to see how much percentage of the influence given by the learning motivation variable (X_2) on IPAS learning outcomes (Y). Based on the value of the coefficient of determination or the determining coefficient (KP) with the formula KP = r2 x 100% or (0.319) x 100%, namely 10.2%. This means that 10.2% of IPAS learning outcomes can be explained by the learning motivation variable, while the remaining 89.8% is explained by other factors not examined.

In accordance with the partial t-test results that the significant value of the influence of learning motivation (X_2) on IPAS learning outcomes (Y) is 0.001 smaller than 0.05 so it can be concluded that there is an influence between the learning motivation variable (X_2) on IPAS learning outcomes (Y).

For comparison of the value of t_hitung with t_tabel through independent t test (partial), the value of t_count 3.030 > t_table 1.990 is obtained, then Ho2 is rejected and Ha2 is accepted. This means that there is a significant influence of learning motivation on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School.

The results of this research are supported by previous research by (Anggita et al., 2023) with the title "Analysis of Students' Learning Interest in IPAS Learning in Grade 4 Panggung Lor Public Elementary School" with the results found that there is an influence of learning interest on the process and achievement of learning outcomes, because students will not learn effectively if they do not have an interest in learning. There was also research conducted previously by (Astuti et al., 2023) with the title "The Effect of Student Learning Motivation on Natural Science Learning Outcomes of Fourth Grade Students of Public Elementary Scool 22 Jerae District Lalabata Soppeng Regency" with the results obtained showing that learning motivation is in the good category based on each indicator of the learning motivation variable. Students show a high level of motivation in learning science, as seen from the average value on the learning motivation variable which is 79.50.

In addition, the results of the analysis show that there is a significant effect of learning motivation on the natural science learning outcomes in fourth grade students of Public Elementary School 22 Jerae, Lalabata District, Soppeng Regency, with a significance value ≤ 0.05 or the value of t-count ≤ t-table, which indicates that Ha is accepted and Ho is rejected, indicating an influence between variable X and variable Y.

3. The Influence of Teaching Modules and Learning Motivation on the IPAS Learning Outcomes of Phase B Students in Grade Four of Advent Airmadidi Elementary School

The coefficient of determination (r2) needs to be analyzed as a measure to evaluate the extent to which the model is able to explain variations in the dependent variable by considering the independent variables (Bahri, 2018). In other words, r2 can also be interpreted as the proportion of the overall influence of the independent variable on the dependent variable.

The value of the coefficient of determination or the determining coefficient (KP) is obtained using the formula KP = r2 x 100%, so that the coefficient of determination is obtained as the contribution of the teaching module variable and the learning motivation variable to the IPAS learning outcomes with a correlation relationship (R) value of 0.363 and obtains a coefficient of determination (R-square) value of 0.132 or 13.2%. This illustrates that about 13.2% of students' IPAS learning outcomes can be explained by teaching module variables and learning motivation variables, while the remaining 86.8% is explained by other factors not examined.

The F test is used to evaluate all the effects of independent variables (X) on the dependent variable (Y) or is a regression model significance test (Widarjono, 2015). The F test is used to determine whether the independent variables (X) have a joint (simultaneous) effect on the dependent variable (Y). This third hypothesis uses multiple regression statistical tests which are used to understand the effect of one or more independent variables on one dependent variable (Siregar, 2017).

Based on the results of the ANOVA table output, the significance value for the effect of teaching modules (X_1) and learning motivation (X_2) on IPAS learning outcomes (Y) is 0.04 <0.05 and f-count 6.060> f-table 3.11. The results obtained from data analysis, it can be concluded that the teaching module variables (X_1) and learning motivation (X_2) have a significant effect on IPAS learning outcomes (Y) in the multiple regression model.

Therefore, it proves that Ho3 is rejected and Ha3 is accepted. This means that there is a significant effect of teaching modules (X_1) and learning motivation (X_2) on IPAS learning outcomes (Y).

CONCLUSION

The results of the research on the influence of teaching modules and learning motivation on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School show that the level of teaching modules is high for both teachers and students. Likewise, the learning motivation level obtained a high category. Therefore, the researcher draws conclusions based on the research that has been conducted, as follows:

1. There is a significant influence of teaching modules on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School.
2. There is a significant influence of learning motivation on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School.
3. There is a significant influence of teaching modules and learning motivation on the IPAS learning outcomes of phase B students in grade four of Advent Airmadidi Elementary School.

Hopefully through this research, it can add insight to teachers and other researchers in implementing teaching modules that are supported by every component that students need in learning activities so that students can continue to be motivated in learning so that learning outcomes will have a positive impact, which is to increase better.

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