



The Influence of Teacher's Teaching Style on the Studies Science Lesson Result of Elementary School in Cibadak District

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Abstract. The influence of teachers' teaching methods on science learning outcomes in elementary schools in the Cibadak District is the topic of this study. This study's goal was to ascertain how the teacher's methods of instruction affected students' learning of science. Ex-post facto quantitative research is the style of study used. Fourth grade teachers from 48 elementary schools in the Cibadak District made up the study's sample. Eight fourth grade teachers from five elementary schools in the Cibadak sub-district made up the research sample, which was chosen at random. Scale and document study is the method of data collection that is used. In order to analyze the data, SPSS version 23.0 for Windows was used. According to the normality test analysis, Sig. 0.156 > 0.05 shows that the data are normally distributed. The linearity test results were examined in order to ascertain the value of Sig. Because the value of 0.594 > 0.05, it may be stated that there is a substantial linear association between the teacher variable's teaching style and the learning result variable related to science. The impact of the teacher's teaching style on the outcomes of science learning is revealed by basic linear regression analysis.

Keywords: science · learning outcomes · teacher teaching style · influence

1 Introduction

Education must be taken by everyone to determine the future, especially at the elementary school level. Through elementary school education, students will be given the basis of knowledge, and can build good and moral character. In order for education to run well, a curriculum is needed to be guide system so that the learning process is directed and clear. Schools currently use the 2013 curriculum which contains general subjects that must be achieved, one of which is science lessons, which are reasonable or logical lessons, because science learning examines all living things and the surrounding natural environment and all its contents.

Science lessons such as the material for force and motion in class IV which is being studied in semester II learn about the kinds of force, the definition of force and the use of force in daily life such as electric force, spring force, gravitational force and others. Based on the results of interviews with fourth grade teachers at.

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SDN 01 Lembursawah (RD) and fourth grade teachers at SDN 09 Karangtengah (ES) said that fourth grade students have been able to group objects and sort things, but have not been able to understand abstract problems. In line with Jean Piaget's developmental theory, children in seven to eleven years old have to concrete operational abilities, which means they can readily understand and accept explanations by seeing their real or direct form.

Improving the quality and achieving education that meets expectations, one of which is determined by the efforts of teachers as educators. Efforts made by an educator to improve the quality of education are needed, namely teachers must be able to provide changes and updates in conveying learning to students so that the conditions for the learning process are not passive. Based on the results of interviews with researchers on February 23, 2022 at 07:00–09:00 WIB at SDN 01.

Lembursawah with a grade IV (RD) teacher said that in the process of learning science material, especially force and motion, they did not use props but only raced on textbooks and worksheets. The results of observations of many students who do not go to school without information.

The teaching style used by an educator is certainly very important in learning activities, because the learning process certainly cannot be separated from the dialogue that occurs between teachers and pupils. It is said that learning is effective when the teacher uses the right teaching style, creates pleasant learning conditions and raises the spirit of student learning, so that students can focus and students easily understand the material provided by the teacher. The real form of student success in the learning process can be seen from the learning outcomes obtained by students. Student learning outcomes can be declared successful when students get scores that reach the minimum standard of completeness criteria given in the form of scores or grades after students complete the tasks given by the teacher.

Based on the results of the researcher's interview on February 23, 2022 at 09:15–11:00 WIB at SDN 09 Karangtengah with class IV (E) teachers saying that in the process of learning activities the teacher always tries to get students to be actively involved, therefore the teacher in providing explanations the material uses props that suit their needs, sometimes the teacher gives students the opportunity to discuss in teaching and learning activities, especially on the material for force and motion the teacher uses existing props such as balls for examples of the force of gravity, bracelets, magnets and others. The attendance of students is good students are eager to receive the subject matter presented.

Students in achieving learning outcomes get different scores, because students' abilities are not all the same in understanding the material or absorbing the information provided by the teacher, some are quick to understand, moderate, and slow. Two general factors that affect learning outcomes are factors from within (internal) and factors from outside (external). Internal factors include motivation, interest, attention, discipline, study habits, external factors in the form of family circumstances, school environment, playmates, and teacher teaching styles.

The results of interviews with students at SDN 01 Lembursawah 4 out of 5 students said they preferred other subjects such as mathematics to science because they did not like to read a lot of material, were bored, did not understand because the teacher only

explained what was in the textbook, then the teacher only gave assignments. The recap of the daily science test scores on the force and motion material only 9 out of 41 people got a score of more than 70, and the highest score obtained was 80, while the science learning outcomes on the force and motion material at SDN 9 Karangtengah 14 out of 31 students who got a score more than 70, and the highest score obtained is 100. Students at SDN 09 Karangtengah 4 out of 5 people also say they are less interested in science lessons, prefer other subjects such as sports, and cultural arts and crafts.

Based on the results of these observations and interviews, the researcher found one main phenomenon, namely the teaching style of the teacher, so that the researchers linked these variables with student learning outcomes in daily science scores. This makes researchers interested in conducting research on this phenomenon. Therefore, in this study, the researcher raised the title of the study "The Influence of Teacher Teaching Styles on Science Learning Outcomes in Elementary Schools in Cibadak District."

Based on the background of the problems that have been described previously, the formulation of the problem in this study is whether there is a correlation between teacher teaching methods and science learning results in Cibadak District elementary schools. So that the research carried out is more focused on the solution of the problem, the researcher limits the research, namely to ascertain the impact of the teacher's instructional approach on the results of scientific learning in the Cibadak District's elementary schools. The purpose of this study is to ascertain how a teacher's instructional approach affects students' progress in science in elementary schools in Cibadak District.

2 Method

This study employs a quantitative that is an approach in which the methods and data analysis are described in the form of numbers that aim to verify the established theory. To analyze certain populations or samples, a quantitative research approach is utilized, and the data gathered in the form of numbers that are tested with statistical tests aimed at testing predetermined hypotheses [1]. Based on this understanding, this quantitative research is a form of processing data in the form of numbers into a data result that supports the researcher's hypothesis or to answer the researcher's hypothesis.

This research will be carried out in March in the second semester of the 2021/2022 academic year in 5 elementary schools in Cibadak District. The schools in question are SDN 01 Lembursawah, SDN 03 Lembursawah, SDN 09 Karangtengah, SDN 04 Karangtengah, SDN 01 Karangtengah. One independent variable (X) and one dependent variable make up this study's two variables (Y). The variable that influences is known as the independent variable, whilst the variable that is impacted is known as the dependent variable. The teaching approach used by the teacher is the variable (X), and the learning outcome is the variable (Y). This study uses the ex-post facto method, which is used to test existing data without conducting experiments. The ex-post facto method, according to previous researchers, is a method that identifies the influence between variables [2]. This ex-post facto method is the right method to answer the researcher's hypothesis, because the ex-post facto method is a method used to identify between variables, by testing existing learning outcomes data without conducting experiments [3, 4].

3 Result and Discussion

The researcher's initial step in this research is to explain a description of the steps taken for research preparation. These steps are: 1) make observations to find problems in elementary schools. This observation was carried out in March 2022, 2) submit and ratify the thesis proposal to the Thesis Advisory Lecturer as a first step and become the basis for research and thesis preparation, 3) submit research permits to 5 school principals in Cibadak District. These schools are: SDN 01 Karangtengah, SDN 04 Karangtengah, SDN 09, Karangtengah, SDN 01 Lembursawah, SDN 03 Lembursawah.

The population of this research is the class teacher who teaches in the fourth grade of elementary school which is located in Cibadak District, Sukabumi Regency. The number of schools that became the study site were 5 schools selected randomly using random sampling technique. The number of fourth grade teachers who became the subject was 8 people. The research subject is the teacher who is the respondent of the teacher's teaching style. Learning Outcomes in this study are daily score data obtained by each student from respondents in science lessons in class IV in semester 2 of the 2021–2022 academic year.

Each respondent has a different number of students. The details of the characteristics of the respondents based on the school and the number of students are as follows (Table 1).

The requirement of a good analysis is that the data needs to be tested first. This is to facilitate the process of data analysis to achieve significance. The prerequisite test in this research is by performing normality test, linearity test, and simple linear regression. 1) The normality test is carried out to prove that the dependent variable obtained from the research sample is distributed according to the normal rule. 2) Linearity test is to determine the relationship between each research variable, namely the relationship between teacher teaching style and learning outcomes, 3) The analysis is carried out by performing simple linear regression.

A single independent variable's (X) impact was measured using simple linear regression on the dependent variable (Y).

Table 1. Amount of Student

School's Name	Grade	Total
SDN 01 KARANG TENGAH	4A	31
	4B	31
SDN 09 KARANG TENGAH	4A	28
	4B	32
SDN 04 KARANG TENGAH	4	45
SDN 03 LEMBUR SAWAH	4	26
SDN 01 LEMBUR SAWAH	4A	36
	4B	41

Table 2. Output of Normality Test

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	63,423	7,359	,087	8,619	,000
Gaya Mengajar	2,500	1,756		1,423	,156

The normality test was carried out using the one- sample kolmogorov-smirnov test method with using SPSS 23.0 for Windows. The rule for making decisions regarding the normality test is if the value of Sig. < 0.05 then the distribution is not normally distributed, but if the value of Sig. > 0.05 then the distribution is normally distributed. According Table 2, it can be analyzed that the value of Sig. of $0.156 > 0.05$, so that the teaching style variables and learning outcomes variables can be said to be normally distributed.

The calculation of this linearity test is carried out using SPSS version 23.0 for Windows to simplify and increase the validity of the calculation results. The formula used to determine whether or not the dependent variable (Y) and independent variable (X) have a linear relationship (Y) is if the value of Sig. > 0.05 , it can be said that the dependent variable (Y) and the independent variable (X) have a linear relationship, otherwise if the value of Sig. < 0.05 , it can be said that the relationship between the independent variable (X) and the dependent variable (Y) is not linear. Based on Table 3, the researcher obtained the value of Sig. larger than 0.05, i.e., $0.594 > 0.05$, it can be concluded that the teaching style variable and the science learning outcome variable have a strong linear connection (Figs. 1 and 2).

Simple linear regression was used to measure the influence of one independent variable (X) on the dependent variable (Y) [5]. This test is to facilitate data processing, the researchers used SPSS version 23.0 for Windows. Based on the results of simple linear regression analysis, it can be concluded that the independent variable (X) is the teacher's teaching style on the dependent variable (Y), namely the science learning outcomes.

Table 3. Linearity Test

		Sum of Squares	df	Mean Square	F	Sig.
VAR0000	Between Groups	(Combined) 330,086	6	55,014	1,033	,637
2 *	Linearity	6,626	1	6,626	,124	,784
VAR0000 1	Deviation from Linearity	323,461	5	4,692	1,214	,594
	Within Groups	53,278	1	53,278		
	Total	383,364	7			

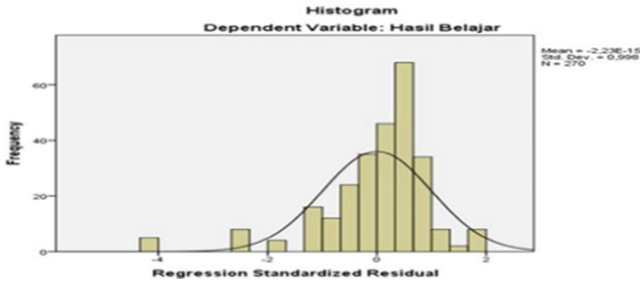


Fig. 1. Dependent Variable: Learning Results

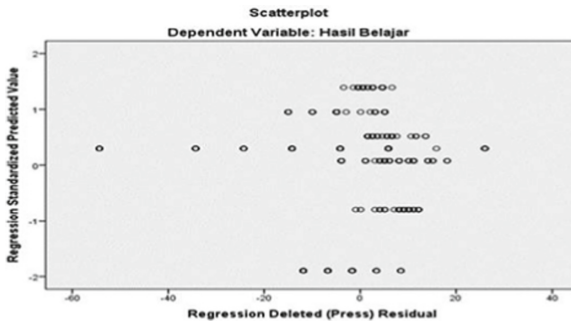


Fig. 2. Regression Analysis

This research was conducted in elementary schools throughout the Cibadak sub-district, where the research was randomly selected using a random sampling technique. The elementary schools where the research was conducted were SDN 01 Karangtengah, SDN 04 Karangtengah, SDN 09 Karangtengah, SDN 01 Lembursawah, SDN 03 Lembursawah. The subjects in this study were 8 fourth grade teachers. The teacher’s teaching style data was taken using a scale sheet and the students’ daily science score data was taken using a document study. The daily grades for the students’ natural sciences were taken entirely from Theme 8 material “The Area I Live in” from 5 Elementary Schools in Cibadak District Based on the results of the analysis using SPSS 23.0 for Windows, namely the normality test and linearity test, for the data generated in the normality test the results of Sig. $0.156 > 0.05$, meaning that the data used is normally distributed and can be used for the next testing stage. The data tested using SPSS version 23.0 for Windows to find out the results of the linearity test, it was found that the value of Sig. $0.594 > 0.05$, meaning that the data is linear there by indicating that there is a significant relationship between the independent variable (X), which is teaching style, and the dependent variable (Y), which is science learning outcome.

Based on this description, the teacher’s teaching style cannot be underestimated because it still has an impact on student learning outcomes. Teachers who have a good teaching style certainly have a positive influence on the educational process in that the output of students gets maximum results. The results of the data obtained from the teacher’s teaching style scale sheet concluded that 7 grade IV teachers belonged

to the category of technological teaching style where the teacher paid attention to the readiness of students, the teacher mastered the learning methodology, used the available infrastructure in accordance with the ongoing learning needs. The other teacher belongs to the category of classical teaching style where the teacher dominates the class using conventional learning and almost never uses media such as power points and others.

4 Conclusion

Science Learning Outcomes and Teacher Teaching Style are positively correlated. Based on the study of the results of the normalcy test to determine the Sig value, this is stated. $0.156 > 0.05$ so that the teaching style variables and learning outcomes variables can be said to be normally distributed, the linearity test results get the Sig. value. greater than 0.05, i.e. $0.594 > 0.05$, so It can be claimed that the teaching style variable and the scientific learning outcome variable have a significant linear relationship. This percentage proves that there is still an influence that cannot be underestimated from the teacher's teaching style on science learning outcomes, thus the researcher's hypothesis is proven.

The teaching style of a teacher is how a student will see how the teacher provides learning in the classroom. The teaching style tends to give the impression on students of the learning they are following. A teacher who has a good teaching style will certainly give a positive impression to his students and give meaning to each lesson. The teacher's teaching style will make learning more effective and efficient for students, teachers and schools so that a good teaching style will make it easier for a teacher to achieve learning goals. Learning outcomes are the fruit of a long process called learning. Learning outcomes can be in the form of data, can be in the form of impressions or views of students after completing learning. Learning outcomes are influenced by how the learning process takes place. The learning process that can run well, effectively and efficiently, of course, the influence on learning outcomes will also be good.

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