The Influence of Teachers' Teaching Methods, Attitudes, Motivation, and Commitment on Students' Achievement at Vocational High School

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Abstract. The study aims to describe and examine teachers' teaching methods, attitudes, motivation, and commitment to influence students' achievement in Digital Simulation subjects at the Vocational High School at Soppeng Regency. The study used an ex-post facto research method, with a total population of 120 and a sample of 89 obtained through random proportional sampling using documentation and questionnaires. The prerequisite tests included normality, linearity, and multicollinearity tests, while the hypothesis testing utilized simple linear regression and multiple linear regression. The results indicated that teaching methods were in the "very high" category, teaching attitude was in the "very high" category, teaching motivation was in the "high" category, and teaching commitment was in the "high" category. Students' achievement in Digital Simulation subject was in the "high" criteria. The study found a significant influence of teaching methods, attitudes, motivation, and commitment on students' achievement with values of Sig. of $0.010 < 0.05$ with a contribution of 7.30% for methods, Sig. of $0.000 < 0.05$ with a contribution of 19.8% for attitudes, Sig. of $0.033 < 0.05$ with a contribution of 5.10% for motivation, and Sig. of $0.008 < 0.05$ with a contribution of 7.90% for commitment, and Sig. of $0.000 < 0.05$ with a contribution of 33.8% when all factors were combined.

Keywords: Teaching Methods · Teaching Attitude · Teaching Motivation · Teaching Commitment · Learning Achievement

1 Introduction

One indicator of the success of the teaching and learning process in schools is the achievement factor or student achievement [1]. Learning achievement or achievement factor is used as one of the considerations in determining the final grade because student achievement or achievement as denoted by learning outcomes values reflects the extent to which the level of success achieved by students in achieving the educational goals that have been determined for them—each subject or field of study. Achievement or learning

outcomes (achievement) are the realization or expansion of a person's potential skills or capacities. Mastery of learning outcomes by a person can be seen from his behavior, both in the form of mastery of knowledge, thinking skills, and motor skills [2]. At school, the results of this study can be seen from the student's mastery of the subjects they take.

A teacher's attitude is one of the determining factors for the mental development of students in the future [3]. Because a teacher's attitude is seen not only in teaching time but also in his behavior in everyday life by his students, at this time, many teacher attitudes no longer reflect his attitude as an educator because of various factors that should not occur in the world of education. Therefore, the problem of the teacher's attitude in teaching needs the attention of all of us. A good teaching attitude will make students behave well towards teachers; there will also be a dynamic learning process and more success [4].

In teaching and learning activities, many students lose their enthusiasm for learning. This can be caused by students' lack of motivation to learn [5]. School is the right institution to produce competent human beings with scientific power. One of them is students' motivation to achieve national education. Motivation is a condition that every student owns to behave. Students' potentials are different, as well as how to develop their potential [6].

The commitment of teachers to teaching children is an essential factor in improving the quality of education in schools [7]. Schools need teachers who are professional in their field of work, but the existence of professional teachers is of no use if they do not have a solid commitment to enter the classroom and pass on all the knowledge and skills they have for the success of their students [8].

During the COVID-19 pandemic, Vocational High School students carried out the learning process online, and this learning was still not optimal in transferring knowledge from teacher to students. Online learning affects student learning achievement during the covid-19 pandemic. This is inseparable from the teacher's learning methods, teaching attitude, teaching motivation, and teaching commitment, which have not been maximized for students. Teachers who play an essential role in student achievement must have attitudes, motivation, and commitment to teaching tasks. Based on the problems above, the researcher is interested in conducting research titled "The Influence of Teachers' Teaching Methods, Attitudes, Motivation and Commitment on Students' Achievement at Vocational High School. "

2 Methods

This research is included in the applied category while judging from the method used, and it is classified as an ex post facto method. Furthermore, judging from the explanation or explanatory power level, this research is associative or correlation research [9]. Researchers here use this type of research by looking at the explanatory power or level of explanation, namely correlation or associative research, where they want to see the strength of the relationship between variables. This research was conducted at Vocational High School at Soppeng.

2.1 Population and Samples

The population of this study consists of 120 students who attend Vocational High School at Soppeng. These students are from four classes. Each of these classes has a total of 30 students, making up a total population of 120 students. To select the sample for this study, the Proportional Random Sampling technique was used. This technique involves selecting a sample proportional to the population's size.

The Krejcie table, a well-known statistical table used to determine sample size, was also used to determine the sample size for this study. Based on the Krejcie table, the sample size for this study was determined to be 89 people. Therefore, 89 students were selected as the sample for this study using the Proportional Random Sampling technique.

2.2 Research Variables

This study uses four independent variables (X) and one dependent variable (Y). The first independent variable (X1) is the teaching method, which refers to how teachers deliver their lessons in the digital simulation subject. The second independent variable (X2) is the teacher's teaching attitude, which refers to the teacher's general disposition and behavior toward teaching digital simulation. The third independent variable (X3) is the teacher's teaching motivation, which refers to the teacher's inner drive or desire to teach digital simulation effectively. The fourth independent variable (X4) is the teacher's teaching commitment, which refers to the teacher's dedication and willingness to put in effort and time to teach digital simulation effectively.

The dependent variable (Y) in this study is student achievement in digital simulation subjects, which is the variable that is predicted or explained by the independent variables. The study aims to investigate the relationship between these independent variables (teaching method, teaching attitude, teaching motivation, and teaching commitment) and the dependent variable (student achievement in digital simulation subjects).

2.3 Data Collection and Analysis

Data collection techniques used in this study were documentation and tests, while the data analysis technique consisted of pre-analytical tests. The analysis prerequisite tests are the normality test [11, 10] and the linearity test [11]. The criterion for making a regular decision about whether the data is being tested is when the value (skewness) is between −1 and 1, meaning the data is normally distributed [12]. Test the hypothesis using simple regression analysis and multiple regression.

In this study, two data collection techniques were used, namely documentation and tests. The documentation technique involved gathering relevant documents related to the study, while the test technique involved administering tests to the sample population. The data analysis technique used in this study included pre-analytical tests, which were conducted to ensure that the data were suitable for analysis.

The prerequisite tests employed in this study were the normality test and the linearity test. The normality test was conducted to determine whether the data were normally distributed, with the criterion for making a regular decision being when the value (skewness) is between −1 and 1. The linearity test was conducted to check whether the studied variables had a linear relationship.

The study employed simple regression analysis and multiple regression to test the hypothesis. Simple regression analysis examined the relationship between one independent variable (teaching methods, attitudes, motivation, or commitment) and the dependent variable (students' achievement). Multiple regression was used to examine the combined effect of all four independent variables on the dependent variable.

3   Results and Discussion

The research data were processed using SPSS to obtain answers to the research problem formulation. Data analysis for hypothesis testing was done using simple and multiple regression analysis. Before testing the hypothesis, a prerequisite analysis test was carried out, namely the normality and linearity tests

The results of the normality test from the Table 1 show that the data collected for the learning interest variable shows a skewness value of -0.721, for the teaching attitude variable is 0.185, for the teacher's teaching attitude variable is 0.299, for the teacher's teaching commitment variable is -0.633 and for the learning outcomes variable in Simulation subjects digital by 0.019. This value is in the interval 1 and -1, meaning that the four variables collected are typically distributed.

The results of the linearity test show a linearity value with a significance of 0.008 (Sig. 0.008) < 0.05, so it can be concluded that the relationship variable between the method variable and student achievement has a linear relationship. Linearity value with a significance of 0.000 (Sig. 0.000) < 0.05, so it can be concluded that the attitude with student achievement variable has a linear relationship. While the linearity value with a significance of 0.025 (Sig. 0.025) < 0.05, it can be concluded that the variable teaching

Table 1. Normality Test

Variable	Skewness	Explanation
Methods	-.721	Normal Distributed
Attitudes	.185	Normal Distributed
Motivations	.299	Normal Distributed
Commitments	-.633	Normal Distributed
Achievements	.019	Normal Distributed

Table 2. Linearity Test

Variable	Sig.	Explanation
Teaching Methods for Learning Achievement	0.008	Linear Relationship
Teaching Attitudes to Learning Achievement	0.000	Linear Relationship
Teaching Motivations to Learning Achievement	0.025	Linear Relationship
Teaching Commitments to Learning Achievement	0.009	Linear Relationship

Table 3. Questionnaire Results

Variable	Students (N: 89)			Category
	Very High	**High**	**Enough**	
Methods	68	20	1	Very High
Attitudes	44	44	1	High
Motivation	16	72	1	High
Commitment	16	72	1	High

motivation with student achievement has a linear relationship and a linearity value with a significance of 0.009 (Sig. 0.009), which is undoubtedly smaller than the alpha level of 5% (0.05), so it can be concluded that between the variables of student commitment to student achievement, there is a linear effect (Table 2).

After all the analysis prerequisite tests have met the requirements, the hypothesis test is carried out using simple regression analysis and multiple regression tests. From the Table 3, it can be said that the teaching methods of teachers at Vocational Schools are in the "very high" category because there are 68 students that choose "very high." The teacher's teaching attitude is in the "high" category because 44 students chose the "high" category. The teaching attitude of teachers at Vocational High School is in the "high" category because 72 students chose the "high" category. The teacher's teaching motivation is in the "high" category because 72 students chose the "high" category.

Based on the regression analysis results above, it found the effect of the teacher's teaching method on student achievement in digital simulation subjects with a value of R = 0.270. This result indicates that the influence is not too strong (moderate) but still contributes to student achievement. The regression analysis results for the effect of the teacher's teaching attitude on student achievement is R = 0.445. This result indicates that the influence is not too strong (moderate) but still contributes to student achievement. The regression analysis results for the Effect of Teacher Teaching Motivation on Student Achievement in the Digital Simulation subject are R = 0.227. This result indicates that the influence is not too strong (moderate) but still contributes to student achievement.

The regression analysis results for the Effect of Teacher Teaching Motivation on Student Achievement in the Digital Simulation subject are R = 0.280. This result indicates that the influence is not too strong (moderate) but still contributes to student achievement. The results of the regression analysis for the effect of teaching methods, teaching attitudes, teaching motivation, and teacher commitment to teaching on student achievement in digital simulation subjects with a value of R = 0.581 This result indicates that the influence is not too strong (moderate) but still contributes to learning achievement student.

Based on the study that has been done, the result shows that even when only teachers' teaching methods that in the "very high" category and the other is in the "high" category, the regression analysis result indicates that all of the variables above (methods, attitudes, motivations, and commitments) are contributing to the student's learning

achievement. This result is the same as the linearity test that shows all variables are in a linear relationship with students' learning achievement.

4 Conclusion

Based on the data obtained and the results of the analysis that has been carried out, it can be concluded that there is a positive influence from teaching methods, attitudes, motivation, and teacher commitment to student achievement individually and collectively in Vocational Schools. This shows that Vocational Schools will achieve better learning outcomes when teachers have effective teaching methods, a positive attitude, high motivation, and a strong commitment to their teaching duties. In this context, it can be concluded that the teacher's role is vital in improving the quality of education in Vocational Schools. Therefore, continuous support and development are needed to improve teachers' skills, knowledge, and skills in designing effective teaching methods, building positive attitudes toward learning, maintaining high motivation, and strengthening their commitment to teaching tasks. Thus, students in Vocational Schools will be able to achieve better learning achievements and compete in an increasingly competitive globalization era.

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