



## The Influence of teacher pedagogical competence and the use of animation video learning media on elementary school student learning Outcomes in East Lembean district

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### Abstract

This research aims to determine the influence of teacher pedagogical competence and the use of animated video learning media on the learning outcomes of elementary school students in East Lembean District. This research was conducted on fifth grade elementary school students in East Lembean District, cluster 1 with a total of 30 students as the sample in this research. The sampling technique uses Random Sampling Technique with the Slovin formula. The data collection technique in this research was carried out using the survey method. The research instrument used was a questionnaire. Research data uses simple linear regression analysis and multiple linear analysis with the SPSS Version 27 for Windows program. The results of this research show that there is a significant influence between teacher pedagogical competence on the learning outcomes of elementary school students in East Lembean District of 23.7%, as evidenced by the  $t_{count}$  value when compared with  $t_{table}$ , the result is  $3.378 > 2.04841$ . There is a significant influence between the use of animated video learning media on the learning outcomes of elementary school students in East Lembean District of 37.1% as evidenced by the  $t_{count}$  value when compared with  $t_{table}$ , the results are  $16.491 > 2.04841$ . There is a significant influence between teacher pedagogical competence and the use of animated video learning media on the learning outcomes of elementary school students in East Lembean District, amounting to 69.5%. This is proven by the value of  $t_{count}$  when compared with  $t_{table}$ , the result is  $8.280 > 2.04841$ . Thus, the higher the teacher's pedagogical competence and the use of animated video learning media, the better the learning outcomes of elementary school students in East Lembean District.

**Keywords:** Pedagogical competencies, learning media, learning outcomes

### Introduction

Education has a very important meaning for the life of every human being. The importance of education shows that no one on this earth can escape from the education process. Because by following the education process, a person can develop their potential and skills obtained through various forms of learning activities, guidance, teaching and training. Likewise, according to Nurhuda, (2022: 17) education is very important, because with education humans can find out something they don't know yet and explore quality human resources. Quality education can also produce quality human resources. Quality humans will be the spearhead of a nation's progress. Therefore, developed countries in the world make education a strategic factor in creating the progress of their nation.

In accordance with Law Number. 20 of 2003, "General education, or national education, is education based on the framework and Constitution of the Republic of Indonesia of 1945, which is based on the religious and cultural values of the Indonesian nation and meets the requirements of changing times. The aim of education is to develop the competence of students so that they become human beings who believe in and are devoted to God Almighty, have noble character, are healthy, intelligent, capable, creative, independent, and democratic and responsible citizens. Schools are one of the platforms available to achieve national education goals.

Schools are educational institutions in which interaction occurs between teachers and students which includes

educational activities in the form of learning to make the lives of the nation's children smarter. Most countries in the world have a formal education system which is generally mandatory. In this system, students progress through a series of teaching and learning activities at school. In the world of education, teachers are one of the determinants of the success of achieving the national goals of the Indonesian nation. Teachers are also an important component that determines the implementation of the educational process. Therefore, "Teachers must have adequate quality and skills, because teachers are part of a very strategic micro education system and have an important role in the educational process in schools" Suyanto and Hisyam, (2000: 27).

In line with current developments in which technology has become increasingly sophisticated and focuses on science and technology, the education system is being transformed to prepare the young generation to become lifelong learners but this cannot be separated from the goals of national education which basically aims to improve the quality of all advanced Indonesian society, modern and based on Pancasila. Therefore, inclusive quality education and digital learning must be the focus of every country. In the world of education today, technology is very helpful in making learning activities a success, namely as a supporting learning tool.

In the 21st century, learning is designed to help the 21st century generation keep up with the latest technological developments. Therefore, students are required to be able to know four learning skills (4C), namely, creativity and

innovation, critical thinking and problem solving, communication and collaboration (Fatma *et al.* 2022: 2). These four competencies aim to shape students' personalities to be more intelligent and qualified. To be able to form students according to the goals of education in the current era, qualified and skilled teaching staff are also needed, who are able to adapt to current developments, where teachers are required to be able to know and use technology. Teachers as implementers of education must have adequate competence to develop students' way of thinking.

Pedagogical Competency is one of the four competencies that teachers must have. In the 2005 Government Regulation of the Republic of Indonesia concerning National Education Standards, Article 28 Paragraph (3) point (a) "Teacher Pedagogical Competency is the competency to manage student learning which includes: understanding students, planning lessons, assessing learning outcomes and developing students to realize their potential their multifaceted. Pedagogical competence is very important for a teacher, especially in understanding the characteristics of students as well as managing learning (planning, implementing and evaluating the results) of learning and developing all the potential that exists in students optimally. Pedagogical competence is really needed by teachers, because teachers deal directly with students and teachers are required not only to teach, but also as a means of character building for students. Especially as a teacher who teaches in elementary schools, who plays an important role in developing students' personalities and potential as a basis for continuing to higher levels of education.

It can be concluded that teacher pedagogical competence is an important element that a teacher must have in carrying out their duties and responsibilities as an educator. Because by having and mastering this competency, it can illustrate the success of a teacher in carrying out the learning process, providing knowledge to his students. The better the competence a teacher has, theoretically the learning activities will be more effective so that the predetermined learning objectives can be achieved well.

In the educational process in schools, teaching and learning activities are the main activities. The success or failure of teaching and learning activities to achieve a competency determined to be achieved by students depends on the way the material is presented by the teacher. Because one of the functions of the learning objective itself is for students to better understand something that they have not understood before. The reality in the field now is that teachers still use the old way of teaching, using only conventional methods, only lecturing and explaining without using learning media that attracts students' attention. As a result, students are bored with studying and student learning outcomes in the cognitive domain are poor because students do not understand the material provided by the teacher.

Many teachers are also lazy to innovate by not developing the skills to learn, master and use technology. Even though mastering technology is a demand of today's era. In order to achieve student learning outcomes, teachers should present lesson material using technology-based learning media, where the presentation of the material is in the form of animated images or videos, so that learning activities can run well and be fun and students can better understand the material presented by the teacher. Therefore, teachers need to have pedagogical competence to be able to manage

learning using technology-based learning media such as animated videos.

This research aims to determine the influence of teacher pedagogical competence on the learning outcomes of elementary school students in East Lembean District, the influence of the use of animated video learning media on the learning outcomes of elementary school students in East Lembean District, and the influence of teacher pedagogical competence and the use of animated video learning media on the learning outcomes of State Elementary School students in East Lembean District.

## Method

This study uses a quantitative approach. The research used is to examine certain populations or samples randomly, data collection using research instruments, statistical quantitative data analysis with the aim of testing predetermined hypotheses (Sugiyono, 2009: 14) <sup>[19]</sup>. The population in this study was class V students of Cluster 1 Elementary School in East Lembean District, totaling 43 people. The population taken as a sample was 30 people. In this regard, the entire population had the opportunity to become members of the sample, so the sample size used was determined to be 30 class V students.

Data collection in this research was carried out using a survey method. In collecting data for the three variables, an instrument in the form of a questionnaire was used which was prepared using a Likert scale. The Likert scale is used to measure the attitudes, opinions and perceptions of a person or group of people about social phenomena. In this research, social phenomena are the variables of teacher pedagogical competence, animated video learning media and student learning outcomes. The data collection techniques used in this research are documentation, observation, questionnaires. The instrument in this research uses a research instrument in the form of a questionnaire to obtain variable data on teacher pedagogical competence and the use of animated video learning media.

The instruments validated in this research consisted of 3 instruments, namely the teacher pedagogical competency instrument, the animated video learning media instrument, and the student learning outcomes instrument. Testing the validity of instrument items in this research used product moment from Karl Pearson with the help of processing using SPSS version 27 for windows. In this research, to test reliability, the Alpha Cronbach formula was used. If  $r$  count is greater than  $r$  table then the instrument is said to be reliable. Data processing to test reliability in this research uses the SPSS Windows version 27 computer program. The data analysis technique in this research goes through three stages, namely the data description stage, prerequisite testing stage and hypothesis testing stage. The prerequisite tests carried out in this research are the normality test, linearity test, homogeneity test and multicollinearity test. Meanwhile, the hypothesis tests used in this research are simple linear regression analysis and double linear analysis.

## Results and Discussion

### A. Descriptive Statistical Analysis

In this research there are several data, namely teacher pedagogical competency data, animated video learning media data, and learning outcomes data. Based on data collection that was carried out on elementary school students in East Lembean District, totaling 30 respondents,

data was obtained from the research variables, namely the independent variable teacher pedagogical competence (X1) and animated video learning media (X2) as well as the dependent variable, namely learning outcomes (Y). The data analysis carried out was descriptive statistical analysis, research prerequisite tests, and hypothesis testing. The following is a descriptive statistical analysis of each variable:

### 1. Learning Outcome Variables

Learning outcome variable data was obtained from the learning outcomes test which consisted of 5 question items. Based on data collection and data analysis results of learning outcome variables using SPSS 27 for Windows. The results of descriptive statistical tests on learning outcomes show that the average value (mean) of student learning outcomes is 88.87, the middle value (median) is 88.50, the standard deviation (std. deviation) is 5.588, the lowest (minimum) value is 77, the highest value (maximum) is 98. The total score (sum) is 2666.

### 2. Teacher Pedagogical Competency Variables

Data on teacher pedagogical competency variables were obtained from a questionnaire consisting of 25 statement items and 5 alternative answers with a score range of 1-5. Based on the data collection and analysis results of the teacher pedagogical competency variable (X1) for elementary school students in Lembean Timur district using SPSS 27 for Windows. The results of descriptive statistical tests on teachers' pedagogical competence show that the average value (mean) of teachers' pedagogic competence is 88.87, the middle value (median) is 91.00, the standard deviation (std. deviation) is 5.885, the lowest (minimum) value is 75, the highest value (maximum) is 97. Total score (sum) is 2661.

### 3. Variables in the Use of Animation Video Learning Media

Learning media variable data was obtained from a questionnaire consisting of 25 statement items and 5 alternative answers with a score range of 1-5. Based on the collection and results of variable data analysis using animated video learning media (X2) for elementary school students in Lembean Timur district using SPSS 27 for Windows. The descriptive test results of animated video learning media show that the average value (mean) of animated video learning media is 84.93, the middle value (median) is 85.50, the standard deviation (std. deviation) is 4.102, the lowest (minimum) value is 75, the The highest (maximum) is 91. The total score (sum) is 2548.

## B. Research Prerequisite Test

The prerequisite tests carried out in this research are the normality test, homogeneity test, linearity test and multicollinearity test. Below are presented the results of the research prerequisite tests from the data that has been obtained.

### 1. Normality Test

The normality test is carried out to test whether each variable has a normal distribution or not, so that it can be seen whether the sample represents the population or not. (Sugiyono, 2016). The normality test in this study used the Kolmogorov Smirnov test. Normality testing is assisted by

using SPSS 27 for Windows. Research data is said to be normally distributed if the Asymp. Sig.  $> 0.05$  (Sugiyono, 2022). Based on the normality test results in Table 5, it can be seen that the asymp. The sig. of the learning outcome variables, teacher pedagogical competence and animated video learning media is  $> 0.05$  so that the data distribution for the three variables is normally distributed.

### 2. Linearity Test

The linearity test aims to determine whether there is a linear relationship or not between the variables studied. The linearity test used in this research is a test for linearity using SPSS 27 for windows. Decision making is seen from the significance value. If Sig. deviation of linearity  $> 0.05$ , then the variables studied have a linear relationship. Based on the linearity test results in the table, it is known that the deviation from linearity value of each variable is  $> 0.05$  so it can be concluded that each variable has a linear relationship.

### 3. Homogeneity Test

The Homogeneity Test is carried out to find out whether the existing data set has the same characteristics or not. The homogeneity test used is the Barlet test carried out with the help of SPSS 27 for Windows. Decision making is seen from the sig value. if the sig value.  $> 0.05$  then the data is said to be homogeneous. Based on the homogeneity test results presented in the table, it is known that the sig. from the existing data set is 0.080 so it can be concluded that the existing data set is homogeneous or has the same characteristics.

### 4. Multicollinearity Test

The multicollinearity test aims to find out whether in the regression research carried out there is a correlation in each independent variable. Multicollinearity testing using SPSS 27 for Windows. The requirement for determining a multicollinearity relationship is to look at the variance value and variance unflatory factor (VIF). It is said that there is no multicollinearity if the tolerance value is  $> 0.10$  and the VIF value is  $< 10$ . Based on the results of the multicollinearity test presented in the table, it is known that the tolerance value of each independent variable is  $0.793 > 0.10$  and the VIF value of each independent variable is  $1.261 < 10$  so it can be concluded that there is no multicollinearity in each independent variable.

## C. Hypothesis Testing

Hypothesis testing in this research aims to determine the effect of the independent variable on the dependent variable and answer the research hypothesis. There are two hypothesis tests carried out in this research, namely simple linear regression analysis to determine the influence of variables partially and multiple linear regression analysis to determine the influence of variables simultaneously. Simple linear regression analysis was carried out to test hypotheses 1 and 2, while multiple linear regression analysis was carried out to test hypothesis 3. Below are presented the results of research hypothesis testing carried out using SPSS 27 for windows.

### 1. Hypothesis Test 1

Hypothesis 1 in this research is "Teacher Pedagogical Competence has a positive and significant influence on the

learning outcomes of elementary school students in East Lembean District". The research hypothesis can be stated as follows.

H0 = Teacher pedagogical competence does not have a positive and significant influence on the learning outcomes of elementary school students in East Lembean District.

Ha = Teacher pedagogical competence has a positive and significant influence on the learning outcomes of elementary school students in East Lembean District.

The first step taken in testing hypothesis 1 was simple regression analysis using SPSS 27 for windows. The results of the simple regression analysis test are displayed in Table 1.

**Table 1:** Simple Regression Test Results for Variables X1-Y

ANOVA <sup>a</sup>							
Variable	A	B	R	r <sup>2</sup>	Sig. F Charge	t <sub>count</sub>	t <sub>table</sub>
1   X1-Y	47.511	0.465	0.486	0.237	0.000	3.378	2.04841

Based on the results presented in the table, the results of the simple regression analysis test for variables X1-Y. What is next is to create a simple linear equation, find out the correlation of X1 and Y, calculate the coefficient of determination X1-Y, and carry out a significance test.

**a. Simple linear line equation**

The next step is to create a simple linear regression line equation. The following is the equation formula:

$$Y = a + b$$

Where Y = Dependent variable, a = Constant Number, b = regression coefficient, X = Independent variable

Based on the table results, a simple linear line equation X1-Y is presented, namely:

$$Y = a + b$$

$$Y = 47.511 + 0.465$$

Based on this equation, it is known that the coefficient value of

**b. Correlation X1-Y**

Based on the table above, the R value (correlation coefficient) between X1 and Y is 0.486. The correlation coefficient has a positive value (+) so it can be said that the teacher pedagogical competency variable has a positive effect on learning outcomes. This means that teachers have high pedagogical competence, so that students have high learning outcomes too.

**c. Determination Coefficient X1-Y**

The coefficient of determination is a number that shows the extent of the contribution of the independent variable to the dependent variable or in other words to determine the magnitude of the influence of the independent variable on the dependent variable. Based on the existing table, the coefficient of determination (r<sup>2</sup>) is 0.237 and is then converted into a percentage, namely 23.7%. This can be interpreted that the teacher's pedagogical competency variable has an influence of 23.7% on learning outcomes and 76.3% is influenced by other factors.

**d. Significance Test**

The significance test was carried out to determine the significance of the influence of teacher pedagogical competency variables on learning outcomes. Based on the

existing table. The significance value is known using a comparison of t<sub>count</sub> with t<sub>table</sub>. if t<sub>count</sub> > t<sub>table</sub> then it can be said that the variable has a significant influence.

Based on the table, the t<sub>count</sub> value is 3.378, the t<sub>table</sub> value with a significance level of 0.05 and (df) 28 has a value of 2.04841. so the comparison is t<sub>count</sub> > t<sub>table</sub> 3.378 > 2.04841. Based on these calculations, it can be concluded that the teacher pedagogical competency variable has a significant influence on learning outcomes.

**2. Hypothesis Test 2**

Hypothesis 2 in this research is "The use of animated video learning media has a positive and significant influence on the learning outcomes of elementary school students in East Lembean District". The research hypothesis can be stated as follows.

H0 = The use of animated video learning media does not have a positive and significant influence on the learning outcomes of elementary school students in East Lembean District.

Ha = The use of animated video learning media has a positive and significant influence on the learning outcomes of elementary school students in East Lembean District.

The first step taken in testing hypothesis 2 was simple regression analysis using SPSS 27 for windows. The results of the simple regression analysis test are displayed in Table 2.

**Table 2:** Simple regression test results for Variable X2-Y

ANOVA <sup>a</sup>							
Variable	a	b	R	r <sup>2</sup>	Sig.F Charge	t <sub>count</sub>	t <sub>table</sub>
1   X2-Y	-1.976	0.220	0.609	0.371	0.001	16.491	2.04841

Based on the results presented in the table, the results of a simple regression analysis test for the variable X2-Y. The next step is to create a simple linear equation, find out the correlation of X2 and Y, calculate the coefficient of determination

**a. Simple linear line equation**

The next step is to create a simple linear regression line equation. The following is the equation formula:

$$Y = a + b$$

Where Y = Dependent variable, a = Constant Number, b = regression coefficient, X = Independent variable

Based on the table results, a simple linear line equation X1-Y is presented, namely:

$$Y = a + b$$

$$Y = -1.976 + 0.220$$

Based on this equation, it is known that the coefficient value of

**b. X2 – Y correlation**

Based on the table above, the R value (correlation coefficient) between X2 and Y is 0.609. The correlation coefficient has a positive value (+) so it can be said that the variable use of animated video learning media has a positive effect on learning outcomes. This means that by using animated video learning media in the learning activities that teachers carry out, learning is more enjoyable and students understand the material more quickly so that students have high learning outcomes.

**c. Coefficient of Determination X2-Y**

The coefficient of determination is a number that shows the extent of the contribution of the independent variable to the dependent variable or in other words to determine the magnitude of the influence of the independent variable on the dependent variable. Based on the existing table, the coefficient of determination (r<sup>2</sup>) is 0.371 and is then converted into a percentage, namely 37.1%. This means that the variable use of animated video learning media has an influence of 37.1% on learning outcomes and 62.9% is influenced by other factors.

**d. Significance Test**

The significance test was carried out to determine the significant influence of variables using animated video learning media on learning outcomes. Based on the existing table, it is known that the significance value can also be seen using a comparison of t<sub>count</sub> with t<sub>table</sub>. If t<sub>count</sub> > t<sub>table</sub> then it can be said that the variable has a significant influence.

Based on the table, the t<sub>count</sub> value is 16,491, the t<sub>table</sub> value with a significance level of 0.05 and (df) 28 gets a value of 2.04841, so the comparison is t<sub>count</sub> > t<sub>table</sub> 16,491 > 2.04841. Based on these calculations, it can be concluded that the variable use of animated video learning media has a significant influence on learning outcomes.

**Hypothesis Test 3**

Hypothesis 3 in this research is "teacher pedagogical competence and the use of animated video learning media simultaneously have a positive and significant influence on the learning outcomes of elementary school students in East Lembean District. This hypothesis can be stated as follows:

H<sub>0</sub> = Teacher pedagogical competence and the simultaneous use of animated video learning media do not have a positive and significant influence on the learning outcomes of elementary school students in Lembean Timur subdistrict.

H<sub>a</sub> = Teacher pedagogical competence and the simultaneous use of animated video learning media have a positive and significant influence on the learning outcomes of elementary school students in East Lembean sub-district.

The first step taken in testing hypothesis 3 was multiple regression analysis using SPSS 27 for windows. The results of the multiple regression analysis test are displayed in Table 3.

**Table 3:** Results of the X1X2-Y Multiple Regression Test

ANOVA <sup>a</sup>								
Variable	A	b <sub>1</sub>	b <sub>2</sub>	R	r <sup>2</sup>	Sig.F Charge	t <sub>count</sub>	t <sub>table</sub>
X1X2-Y	1.262	0.077	0.254	0.020	0.695	0.002	8.280	2.04841

**a. Multiple linear equations**

The next step is to create a multiple linear regression line equation. The formula used to create the equation is as follows.

$$Y = a + b_1 X_1 + b_2 X_2 \text{ (Sugiyono, 2005)}$$

Where Y = dependent variable, a = constant number, b<sub>1</sub> = regression coefficient of variable X<sub>1</sub>, b<sub>2</sub> = regression coefficient of variable X<sub>2</sub>,

Based on the table above, the equation of the multiple linear line X1X2-Y can be stated as follows:

$$Y = 1.262 + 0.077X_1 + 0.254X_2$$

Based on this equation, it is known that the coefficient value of Furthermore, the coefficient of

**b. Correlation of X1 and X2 with Y**

Based on the table presented, the R value (correlation coefficient) between X<sub>1</sub> and X<sub>2</sub> and Y is 0.020. The correlation coefficient has a positive value so it can be concluded that the variables of teacher pedagogical competence and the use of animated video learning media have a positive effect on learning outcomes. If teachers have pedagogical competence and use animated video learning media in learning, learning outcomes will also increase.

**c. Determination coefficient X1X2-Y**

The coefficient of determination is a number that shows the extent of the contribution of the independent variable to the dependent variable or in other words to determine the magnitude of the influence of the independent variable on the dependent variable. Based on the table, it can be seen that the coefficient of determination (r<sup>2</sup>) is 0.695 and is then converted into a percentage, namely 69.5%. It can be concluded that the teacher's pedagogical competence and the use of animated video learning media have a 69.5% influence on learning outcomes and 30.5% is influenced by other factors outside the research variables.

**d. Significance Test**

The significance test was carried out to determine the significance of the influence of teacher pedagogical competency variables and the use of animated video learning media on learning outcomes. Based on the results of the table presented, the sig value is known. F charge is 0.002 < 0.05 so it can be concluded that pedagogical competence and the use of animated video learning media have a significant influence on student learning outcomes. Significance can also be determined using a comparison of F<sub>count</sub> with F<sub>table</sub>. If F<sub>count</sub> > F<sub>table</sub> then the variable has a significant influence.

Based on the table presented, it can be seen that the F<sub>count</sub> value is 8,280 with F<sub>table</sub> with a significance level of 0.05 and (df) 28, the F<sub>table</sub> value is 2.04841. so 8,280 > 2.04841. Thus, it can be concluded that the variables of teacher pedagogical competence and animated video learning media have a significant influence on learning outcomes. Thus H<sub>0</sub>: rejected and H<sub>a</sub>: accepted, so it can be said that the problem formulation and hypothesis 3 are declared accepted.

**D. The Influence of Teacher Pedagogical Competence on Learning Outcomes**

Based on testing hypothesis 1 with simple linear regression analysis, the simple linear regression line equation is Y = 47.511 + 0.465. Furthermore, it is known that the correlation value (R) is 0.486, which means that the teacher's pedagogical abilities have a positive influence on learning outcomes. Next it is known that the value of the coefficient of determination (r<sup>2</sup>) is 0.237 and then converted into percent form, namely 23.7%

The value contained in the teacher's pedagogical competency variable has an influence of 23.7% on learning outcomes. If the t<sub>count</sub> value is compared with t<sub>table</sub>, the result is 3.378 > 2.04841, so that pedagogical competence has a significant effect on learning outcomes. Based on the existing results, it can be concluded that teacher pedagogic

competence has a positive and significant effect on learning outcomes with a contribution of 23.7%.

This research is also in accordance with research conducted by (Bagja S & Supriyadi, 2018). The competence of each teacher will show the quality of the teacher in teaching which is also manifested in the form of mastery, knowledge and professionalism in carrying out their function as a teacher. so that pedagogical competence is a response to objects received through the process of observing, selecting, organizing, and concluding or interpreting. so that teacher pedagogical competence is said to have a positive relationship to learning outcomes continued by (Sulfemi, 2019) pedagogical competence is competence in processing student learning which includes understanding students, designing and implementing learning, evaluating learning, and developing students.

So in other words, pedagogical competence itself is teacher competence related to the science and art of teaching students continued by (Akbar, 2021) pedagogical competence is an absolute competence for teachers to have as well as a competence that differentiates teachers from other professions. By mastering pedagogical competence, teachers are able to be more effective and efficient in interacting with students and in solving problems that occur with students as well as learning outcomes.

#### **E. Effect of Using Animation Video Learning Media on Learning Outcomes**

Based on testing hypothesis 2 with simple linear regression analysis, the simple linear regression line equation is  $-1.976 + 0.220X$ . Furthermore, it is known that the correlation value (R) is 0.609, which means that the use of animated video learning media has a positive influence on learning outcomes. Next, it is known that the coefficient of determination ( $r^2$ ) is 0.371 and then converted into a percentage, namely 37.1%.

The value contained in the variable using animated video learning media has an influence of 37.1% on learning outcomes. If the significance value is compared with  $t_{table}$ , the result is  $16.491 > 2.04841$ , so that the use of animated video learning media has a significant effect on learning outcomes. Based on the existing results, it can be concluded that the use of animated video learning media has a positive and significant effect on learning outcomes with a contribution of 37.1%.

This research is in line with research conducted by (Supardi *et al.*, 2015) that learning media is a means of visualizing the learning process which is often also used in elementary school learning. Based on the definition, learning media is a method, tool, or process used to convey messages from the source of the message to the recipient of the message which takes place in the educational process.

In line with research conducted by (Putra *et al.*, 2017) in learning using learning media on learning outcomes there are 3 important points, including that there is a significant difference between the average learning outcomes of students who use learning media and students who do not use media learning, there is a significant influence on student learning outcomes as shown by the correlation coefficient and coefficient of determination, and what follows is that the use of learning media itself has a positive influence on learning which is in the good category and gets a positive response during the learning process.

#### **F. Influence of Pedagogical Competency and Use of Animation Video Learning Media on Learning Outcomes**

Based on testing hypothesis 3 with multiple linear regression analysis, the multiple linear regression line equation is  $Y = 1.262 + 0.077X_1 + 0.254X_2$ . This equation can be interpreted as meaning that if the  $X_1$  coefficient value is 0.077 and if the teacher's pedagogical competency value increases by 1% then learning outcomes increase by 0.077 then the coefficient  $X_2$  is 0.254 which means that if the learning media increases by 1% then the value of learning outcomes increases by 0.254. Furthermore, it is known that the correlation value (R) of  $X_1$  and Next, it is known that the coefficient of determination ( $r^2$ ) is 0.695 and is then converted into a percentage, namely 69.5%.

The values contained in the variables of teacher pedagogic competence and learning media have an influence of 69.5% on learning outcomes. If the significance value is compared with  $t_{table}$ , the result is  $8.280 > 2.04841$ , so that the teacher's pedagogical competence and the use of animated video learning media have a significant effect on learning outcomes. Based on the existing results, it can be concluded that pedagogical competence and the use of animated video learning media have a positive and significant effect on learning outcomes with a contribution of 69.5%.

This research is in line with research conducted by (Asro & Muna, 2019) that the quality of the interaction process in learning activities at school or in class is determined by how teachers can understand the character of their students, which is the definition of pedagogical competence. The different characteristics of students mean that teachers must be wise in designing learning strategies that must be in accordance with the characteristics of students, so that there are changes in behavior in students thanks to interactions between one individual and another individual and between individuals and their environment.

Followed by (Rudini & Saputra, 2022) teachers' pedagogical competence in utilizing learning media where various methods must be followed by teachers to create useful learning. Teachers' pedagogical competence which determines students' success in learning also needs to be supported by learning media which becomes a bridge for conveying messages so that students can easily understand them. In this way, the goals in learning are achieved optimally, especially in student learning outcomes.

#### **Conclusion**

1. Teacher pedagogical competence influences the learning outcomes of elementary school students in East Lembean District. Proven by the simple linear regression line equation is  $Y = 47.511 + 0.465X$ . A correlation value (R) of 0.486 means that teacher pedagogical competence has a positive influence on learning outcomes. The coefficient of determination ( $r^2$ ) is 0.237 and is then converted into a percentage, namely 23.7%. The teacher's pedagogical competency variable has an influence of 23.7% on learning outcomes. If the  $t_{count}$  value is compared with  $t_{table}$ , the result is  $3.378 > 2.04841$ , so that pedagogical competence has a significant effect on learning outcomes.
2. The use of animated video learning media influences the learning outcomes of elementary school students in East Lembean District. Proven by the simple linear

regression line equation is  $-1.976 + 0.220$ . A correlation value (R) of 0.609 means that the use of animated video learning media has a positive influence on learning outcomes. The coefficient of determination ( $r^2$ ) is 0.371 and is then converted into percent, namely 37.1%. The variable use of animated video learning media has an influence of 37.1% on learning outcomes. If the  $t_{\text{count}}$  value is compared with  $t_{\text{table}}$ , the result is  $16,491 > 2,04841$ , so that learning media has a significant effect on learning outcomes.

- Teacher pedagogical competence and the use of animated video learning media influence the learning outcomes of elementary school students in East Lembean District. Proven by the simple linear regression line equation is  $Y = 1.262 + 0.077X_1 + 0.254X_2$  which means the coefficient value then the coefficient  $X_2$  is 0.254 which means that if the use of animated video learning media increases by 1% then the learning outcome value increases by 0.254. The correlation (R) of  $X_1$  and the coefficient of determination ( $r^2$ ) is 0.695 and is then converted into percent, namely 69.5%. Teacher pedagogical competency variables and the use of animated video learning media have an influence of 69.5% on learning outcomes. If the  $t_{\text{count}}$  value is compared with  $t_{\text{table}}$ , the result is  $8.280 > 2,04841$ , so that the teacher's pedagogical competence and the use of animated video learning media have a positive and significant effect on learning outcomes with a contribution of 69.5%.

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