



Correlation of Teacher Creativity in Teaching with Student's Learning Achievement

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ABSTRACT

Purpose of the study: This study aimed to determine the correlation between teacher creativity in teaching and learning achievement.

Methodology: This study uses quantitative research methods with a correlational research design. The population in this study was class V elementary school 091299 Sipoldas. The sample in this study amounted to 30. This study used a saturated sample because the population of class V students at elementary school 091299 Sipoldas were all sampled. The data collection techniques used questionnaires and documentation. The data analysis technique used is a prerequisite test and hypothesis testing.

Main Findings: Based on the results of this study, it was concluded that there was a significant correlation between teacher creativity in teaching and learning achievement of fifth grade students at elementary school 091299 Sipoldas because the value of $r_{count} > r_{table}$ ($0.552 > 0.361$) and the significance value of $t_{count} > t_{table}$ ($3.505 > 1.701$) so that it can be concluded that H_a is accepted and H_0 is rejected.

Novelty/Originality of this study: Teachers who don't pay attention to students in the class will impact student learning achievement, which is getting lower and educational goals in schools are not achieved. Therefore, teacher creativity is needed in assembling a lesson to produce student learning achievement

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1. INTRODUCTION

Along with the progress of the times and the rapid development of science and technology, it encourages humans to always develop in various fields, not least in the field of education. Education is one of the fields in human life that has a very important role to create a generation of superior, intelligent, and characterized human beings. With education, humans will always have knowledge, attitudes and habits that are in accordance with existing norms and values. Education is a continuous and never ending process, so that it will produce future human beings and are obedient to cultural values and in accordance with educational goals. In accordance with Law Number 20 of 2003 Article 1 Paragraph 1 "Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, as well as the skills needed by himself, society, nation and state". Education plays a role in shaping the quality of a nation and basically education aims to educate the nation's life. The purpose of education in general is to provide a wide and free environment and allow students to develop their talents and abilities optimally. To create education that will

produce quality Human Resources (HR), the government sets national education goals. The government formulated in the Law of the Republic of Indonesia No. 20 of 2003 Chapter II Article 3 concerning the national education system which explains that education is carried out in order to achieve the expected common goals, namely, "National education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the nation's life, aims to develop the potential of students to become human beings who believe and fear God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens.

In the 2003 National Education System Law Article 40 Paragraph 2 it is explained that educators and education staff are obliged to create an educational atmosphere that is meaningful, fun, and creative. A teacher, especially an elementary school teacher, is required to act as a good teacher, not only aware of the process of transforming knowledge, but also carrying out his duties as an educator, meaning that teachers must be able to shape children's attitudes and behavior. Good education can be implemented with qualified, creative, good-natured and democratic teachers. In the world of education, teachers are the key in generating and developing children's creativity. According to Monawati and Fauzi, [1] a teacher who wants to generate creativity in his students must first develop his creativity as an effort to renew the learning process in schools that have a positive view or opinion on how to create the expected learning situations and conditions. because operationally it is the teacher who is directly involved in the development process at school. Through the creativity possessed by the teacher, it can potentially improve student learning achievement. Learning achievement is a mastery of knowledge and skills which is usually indicated by the value or number given by the teacher [2]-[6]. Student learning achievement really needs to optimize the teacher's role and how to teach the teacher in the classroom. Regarding this Wibowo, [7] found that a survey mentions the factors that support student achievement, namely based on the results of studies in developing countries which have proven that teachers make the highest contribution to learning achievement (36%), followed by management (23%), study time (22%), and physical facilities (19%), as stated by the Director General of Primary and Secondary Education at the XVI Anniversary of the Open University. A teacher in the learning process is not just conveying material, but also must try to make the subject matter presented a fun activity and easily understood by students. Teachers should make various efforts to improve student achievement, to realize this a teacher is required to have creativity in teaching. In the teaching and learning process at school, it is often found that some of the students are unable to understand some of the lessons given by the teacher at school, accompanied by the lack of teachers in making summaries at the end of the lesson about the material being taught.

The inability of students to understand the lessons given by teachers in schools is because some teachers in teaching prefer to apply methods and teaching methods that tend to be monotonous, causing students to become bored and less motivated [8]-[12]. Teachers who receive less attention from students in the class will have an impact on student learning achievement which is getting lower and educational goals in schools are not achieved. In the learning process, teachers should be able to master the subject matter well, use various methods, use learning media, manage classrooms well, be able to connect the subject matter with the real life of students, be able to communicate and interact well with students.

Based on initial observations made in May 2022, in the learning process in class V elementary school 091299 Sipoldas T.A 2021/2022, it was found that the teacher's creativity in learning was low and student achievement was low. This shows that the creativity of teachers in teaching is still less than optimal and student learning achievement is still below the KKM. To be able to find out whether the student has succeeded in learning, the standards that have been determined by each school are used, namely by determining the Minimum Completeness Criteria (KKM). The success of student learning can be seen and known from the mastery of the subject matter that is learned by being shown by the value obtained by students. Creativity in the learning process carried out in class V elementary school 091299 Sipoldas still has an impact on student achievement that is less than optimal. Student learning outcomes in the fourth grade mid-semester examination of elementary school 091299 Sipoldas showed that out of 29 students, only 16 students who scored 70 were categorized as passing with a 55% completeness percentage and 13 students who scored <70 were categorized as unsuccessful with 45% completeness percentage.

2. RESEARCH METHOD

The research method is the method used to achieve the research objectives. This research uses quantitative research methods which are defined as research methods based on the philosophy of positivism, which is used to examine certain populations and samples, collect data using research instruments, analyze data and are quantitative in nature with the aim of testing hypotheses. The design of this research is correlation, which is a study that aims to find out whether there is a relationship between two or more variables, which will later be investigated in order to find out how much influence the independent variable has on the dependent variable. The sampling method in this study is by using a saturated sampling technique. According to Sugiyono [13] saturated

sampling is a sampling technique when all members of the population are used as samples. So the sample in this research is all students of class V, totaling 30 students.

The research instrument used to measure teacher creativity in teaching in this study was a questionnaire. In the preparation of a closed questionnaire, the scale used is a Likert scale to measure respondents' perceptions based on 4 levels with a modification process, namely always, often, rarely and never. The answers to positive statements are always given a score of 4, often are given a score of 3, rarely are given a score of 2, and for answers that are never given a score of 1. 3, and never given a score of 4. The purpose of using this questionnaire is to find out the extent to which teacher creativity in teaching affects the learning achievement of fifth graders at elementary school 091299 Sipoldas for the Academic Year 2022/2023.

In addition to using a questionnaire (questionnaire), this research uses a documentation instrument. In this study, the documentation used is the daily test scores of fifth grade students of elementary school 091299 Sipoldas academic year 2022/2023. The purpose of using the documentation instrument is to obtain data on student achievement in class V.

After the research data has been collected, the next step is data analysis techniques. The data analysis technique is a way of mapping, parsing, calculating, to reviewing the data that has been collected in order to answer the problem formulation and obtain conclusions in research. As stated by Sugiyono [13] that data analysis techniques are methods used with calculations to answer the problem formulation and hypothesis testing proposed in the study. After processing the data, data analysis was carried out to prove whether there was a correlation between teacher creativity in teaching and learning achievement of fifth grade students at elementary school 091299 Sipoldas.

Descriptive statistics is a field of statistical science that studies the ways of collecting, compiling, and presenting research data. Descriptive statistics are only related to describing or providing information about a data or situation or phenomenon, in other words only seeing a general picture of the data obtained. Descriptive statistics function to describe or provide an overview of the object under study through sample or population data [13]. Normality testing is done to determine whether or not a data distribution is normal. It is important to know that it is related to the accuracy of the selection of statistical tests to be used. Parametric tests, for example, require the data to be normally distributed. In this case the researcher used the normality test. In this case the researcher used the normality test with Kolmogorov Smirnov. The part that is used to determine whether the data is normal or not is in the Kolmogorov Smirnov z and $asymp.Sig$ lines. (2-tailed). According to Muhson [14] If the $Asymp.Sig$ value is more than or equal to 0.05 then the data is normally distributed, if $Asymp.Sig$ is less than 0.05 then the data distribution is not normal.

The linearity test was carried out with the aim of knowing the linearity of the relationship between the independent variable (teacher creativity in teaching) and the related variable (class V student learning achievement). It can be said to be linear if the increase in the score of the independent variable is followed by an increase in the score of the related variable. The linearity test in this study used a test for linearity with the help of the SPSS version 21.0 program for windows. Two variables can be said to have a linear relationship if their significant (linearity) < 0.05 and the significant value of Deviation of linearity > 0.05 .

This analysis is used to test the truth of the proposed hypothesis. The way is to continue the results of the questionnaire, the technique is from the results of the analysis of the normality test that is analyzed quantitatively by using the Product Moment correlation analysis technique. Data processing to determine the correlation between variables X and Y variables using the Product Moment correlation formula with the help of SPSS version 21.0 for windows. The calculated data is then consulted with r_{table} with a significant rate of 5%, so that H_a is accepted if $r_{hitung} > r_{table}$, if H_a is accepted then there is a relationship between family environment and learning motivation.

3. RESULTS AND DISCUSSION

In this study, the validity test was carried out in class V SD Negeri 096778 Siboulangit with a total of 10 students as respondents. In the validity test, using a questionnaire with many statements of 25 items. The provisions for the validity test are if $r_{count} > r_{table}$ then it is declared valid, otherwise $r_{count} < r_{table}$ then the questionnaire is declared invalid. In the variable x with a significant level = 0.05 and $n = 10$, the r_{table} is 0.632. This means that if the correlation value is more than 0.632 then the questionnaire item is declared valid, while less than 0.632 then the questionnaire item is declared invalid. Data processing was carried out with the help of SPSS version 21.0 for windows computer. Overall, 25 items of the teacher creativity variable questionnaire statement can be declared valid because all statement items have an item value of $r_{count} > r_{table}$, which is 0.632.

The reliability test of the research instrument was calculated using Cronbach Alpha. In giving the interpretation of the reliability coefficient (r_{11}) a benchmark is used if $r_{11} > 0.60$ means it has high reliability (reliable) and if $r_{11} < 0.60$ means that it does not have high reliability (unreliable). After the calculation, using SPSS version 21 for windows. Showing the results of the instrument reliability test, Cronbach's Alpha value = $0.96 > 0.60$, so it can be said that the statement items in the teacher's creativity questionnaire instrument in

teaching are reliable. After consulting with the r product moment table, it can be seen that this research instrument is included in the classification of high reliability coefficients.

The normality test is used to determine whether the data distribution is in the form of a normal distribution or not. The normality test in this study was carried out on the two variables, namely teacher creativity in teaching and learning achievement of class V students. In this study, normality test was carried out with the help of SPSS 21.0 for windows with the results that the asymp sig (2-tailed) value on all research variables has a significant value of more than 0.05, it can be said that the data on both variables are normally distributed.

In this study, a linearity test was conducted to determine the linearity of the correlation between the teacher's creativity variable in teaching and the learning achievement of class V students. The linearity test in this study was carried out with the help of the SPSS version 21.0 for windows program with the results that the independent variable (teacher's creativity in teaching) and the dependent variable (class V students' learning achievement) has a linear relationship because it has a sig linearity value below 0.05 and a Sig value. Deviation of linearity above 0.05.

Hypothesis testing is used to determine the degree of closeness or correlation between variable X and Variable Y. Testing this hypothesis uses simple correlation analysis. After knowing the correlation coefficient, a significant test is carried out which functions to be generalized. The hypothesis in this study is that there is a significant correlation between teacher creativity in teaching and learning achievement of fifth grade students at SD Negeri 091299 Sipoldas. Hypothesis testing using SPSS version 21.0 for windows program is a simple correlation test between the independent variable teacher creativity in teaching (x) and the dependent variable student achievement (y). the results of testing this hypothesis:

1. Correlation Coefficient (r) x with y

Interprets that the magnitude of the correlation coefficient of the variable y with x (r_{xy}) is 0.552 so that it is categorized as having a moderate correlation level, which is in the range of 0.41 - 0.60. This value also shows a positive relationship between teacher creativity in teaching and student achievement because the correlation coefficient is positive.

2. Significant Test

This significant test aims to test the significant correlation found, namely whether the correlation found is applied to the variables x and y . The significant test in testing this hypothesis uses the t-significant test, namely by comparing the value of t_{count} with t_{table} ($dk = n-2 = 30$ significant level (0.05)). In the table, the value of t_{count} is 3,505 while t_{table} is 1,701. When compared to the magnitude of the value, it can be concluded that $t_{count} > t_{table}$ so H_a is rejected, H_0 is accepted. This is also reinforced by looking at the sig value in table 4.9 which shows 0.002. The sig value is much smaller than 0.05 ($0.002 < 0.05$), which means that there is a significant correlation between teacher creativity in teaching and student achievement.

Correlation analysis can be continued by calculating the coefficient of determination which is the square of the coefficient based on table 4.9, the magnitude of the coefficient of determination is 0.304. This means that the variables that occur in learning achievement in teaching 30.4% are determined by the teacher's creativity variable. It can also be interpreted that the correlation of teacher creativity in teaching with student achievement is 30.4% and 69.6% is determined by other factors that are not explained in this study.

This study aims to determine the correlation between teacher creativity in teaching and learning achievement of fifth grade students at SD Negeri 091299 Sipoldas. Based on the results of the research above, it can be discussed about the results of the study as follows; The normality test was conducted to determine whether or not the correlation between the independent variables and the dependent variable was normal or not. Testing the normality of the data using the one sample Kolmogorov Smirnov test for normality in the SPSS Version 21.0 program for windows. A data is said to be normally distributed at a significance level of 5% if the Asymp.Sig value is greater than 0.05. Based on the results of normality in this study the Asymp value. Sig. (2-tailed) the teacher's creativity variable in teaching is 0.724, while for the student achievement variable, the Asymp value is obtained. Sig. (2-tailed) of 0.338. From these results, the two data are said to be normally distributed because they have a value > 0.05 in accordance with the provisions that have been set. In this study, the linearity test used a test for linearity with the help of the SPSS version 21 program for windows by utilizing the analysis of variance table (ANNOVA). Two variables can be said to have a linear correlation if the significance value of Deviation of linearity is > 0.05 . Based on the linearity test in this study, the significance value of Deviation of linearity was 0.347. So it can be concluded that there is a significant linear correlation between the teacher's creativity variable in teaching (x) and the learning achievement variable (y). While the hypothesis test in this study used a person correlation with the value of t_{count} 3.505 while t_{table} 1.701. If we compare the value, it can be concluded that $t_{count} > t_{table}$ so that H_a is accepted and H_0 is rejected. Thus, it can be said that there is a significant correlation between teacher creativity in teaching and learning achievement of fifth graders at elementary school Sipoldas. The higher the level of creativity of the teacher when teaching, the student's learning achievement also increases [15]-[21].

4. CONCLUSION

Based on data analysis and hypothesis testing that has been done, it can be concluded that there is a significant correlation between teacher creativity in teaching and learning achievement of fifth graders at SD Negeri 091299 Sipoldas. This can be seen based on calculations using SPSS version 21.0 for windows, which shows that $r_{hitung} = 0,552$ and $r_{tabel} = 0.361$ ($r_{hitung} > r_{tabel}$) and $p = 0.000$ ($0.000 < 0.05$). This means that the hypothesis proposed in the study is significant, because r_{count} is greater than r_{table} and the probability is less than 0.05, then the hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected. So it can be concluded that there is a significant correlation between teacher creativity in teaching and learning achievement of fifth grade students at elementary school 091299 Sipoldas. The higher the creativity of the teacher, the higher the learning achievement that will be obtained by the students and vice versa, the lower the creativity of the teacher, the lower the student's learning achievement. Therefore, the high creativity of teachers in teaching is expected to improve learning achievement in fifth grade students at State Elementary School 091299 Sipoldas.

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REFERENCES

- [1] M. Monawati., and F. Fauzi, "The Relationship between Teacher Teaching Creativity and Student Achievement," *Jurnal Pesona Dasar*, vol. 6, no. 2, pp. 33-43, 2018.
- [2] G. J. Hwang., S. Y. Wang., and C. L. Lai, "Effects of a social regulation-based online learning framework on students' learning achievements and behaviors in mathematics," *Computers & Education*, vol. 160, 104031, 2021.
- [3] M. K. Tokan., and M. M. Imakulata, "The effect of motivation and learning behaviour on student achievement," *South African Journal of Education*, vol. 39, no. 1, 2019.
- [4] F. Harahap., N. E. A. Nasution., and B. Manurung, "The Effect of Blended Learning on Student's Learning Achievement and Science Process Skills in Plant Tissue Culture Course," *International Journal of Instruction*, vol. 12, no. 1, pp. 521-538, 2019.
- [5] C. H. Chen., and Y. C. Yang, "Revisiting the effects of project-based learning on students' academic achievement: A meta-analysis investigating moderators," *Educational Research Review*, vol. 26, pp. 71-81, 2019.
- [6] C. W. Liao., C. H. Chen., and S. J. Shih, "The interactivity of video and collaboration for learning achievement, intrinsic motivation, cognitive load, and behavior patterns in a digital game-based learning environment," *Computers & Education*, vol. 133, pp. 43-55, 2019.
- [7] T. G. Wibowo, *Become a Creative Teacher*. Jakarta: Meida Maxima, 2016.
- [8] E. Armitage-Chan., S. Reissner., E. Jackson., A. Kedrowicz., and R. Schoenfeld-Tacher, "How Do Veterinary Students Engage When Using Creative Methods to Critically Reflect on Experience? A Qualitative Analysis of Assessed Reflective Work," *Journal of Veterinary Medical Education*, vol. 49, no. 5, pp. 632-640, 2022.
- [9] S. Chan., and M. Yuen, "Personal and environmental factors affecting teachers' creativity-fostering practices in Hong Kong," *Thinking Skills and Creativity*, vol. 12, 69-77, 2014.
- [10] J. Apak., M. S. Taat., and N. M. Suki, "Measuring teacher creativity-nurturing behavior and readiness for 21st century classroom management," *International Journal of Information and Communication Technology Education (IJICTE)*, 17(3), 52-67, 2021.
- [11] D. Lapeniene., and A. Dumciene, "Teachers' creativity: Different approaches and similar results," *Procedia-Social and Behavioral Sciences*, 116, 279-284, 2014.
- [12] Y. Arifani., F. N. M. Khaja., S. Suryanti., and A. Wardhono, "The Influence of Blended In-service Teacher Professional Training on EFL Teacher Creativity and Teaching Effectiveness," *3L: Southeast Asian Journal of English Language Studies*, vol. 25, no. 3, 2019.
- [13] Sugiyono, *Research Methods Quantitative, Qualitative and R & D*. Bandung: Alfabeta, 2013.
- [14] A. Mohson. *Practical Guide to Advanced Computer Applications*. Yogyakarta: State University of Yogyakarta, 2015.
- [15] A. M. F. Yousef, "Augmented reality assisted learning achievement, motivation, and creativity for children of low-grade in primary school," *Journal of Computer Assisted Learning*, vol. 37, no. 4, pp. 966-977, 2021.
- [16] A. Rahardjanto., and A. Fauzi, "Hybrid-PjBL: Learning Outcomes, Creative Thinking Skills, and Learning Motivation of Preservice Teacher," *International Journal of Instruction*, vol. 12, no. 2, pp. 179-192, 2019.
- [17] R. Novalinda., O. Dakhi., M. Fajra., A. Azman., M. Masril., A. Ambiyar., and U. Verawadina, "Learning Model Team Assisted Individualization Assisted Module to Improve Social Interaction and Student Learning Achievement," *Universal Journal of Educational Research*, vol. 8, no. 12A, pp. 7974-7980, 2020.

- [18] X. X. Liu., S. Y. Gong., H. P. Zhang., Q. L. Yu., and Z. J. Zhou, "Perceived teacher support and creative self-efficacy: The mediating roles of autonomous motivation and achievement emotions in Chinese junior high school students," *Thinking Skills and Creativity*, vol. 39, 100752, 2021.
- [19] K. Du., Y. Wang., X. Ma., Z. Luo., L. Wang., and B. Shi, "Achievement goals and creativity: the mediating role of creative self-efficacy," *Educational Psychology*, vol. 40, no. 10, pp. 1249-1269, 2020.
- [20] D. E. Kusumaningrum., R. B. Sumarsono., and I. Gunawan, "Professional ethics and teacher teaching performance: Measurement of teacher empowerment with a soft system methodology approach," *International Journal of Innovation, Creativity and Change*, vol. 5, no. 4, pp. 611-624, 2019.
- [21] E. F. Rusydiyah., E. Purwati., and A. Prabowo, "How to use digital literacy as a learning resource for teacher candidates in Indonesia," *Cakrawala Pendidikan*, vol. 39, no. 2, pp. 305-318, 2020.