The effect of the Use of Bunga Rawa Media and Creativity towards the Outcome of Learning Writing Javanese Script Vocabulary for The Third Grade Students at SDN Sarirogo Sidoarjo

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Abstract: This is a quantitative research that was aims at: (1) describing the influence of the use of bungarawa media on the learning result of writing Javanese script vocabulary for the third grade students at SDN Sarirogo Sidoarjo; (2) describing the influence of the creativity on the learning result of writing Javanese script vocabulary for the third grade students at SDN Sarirogo Sidoarjo; (3) describing the influence of the use of bungarawa media and creativity on the learning result of writing Javanese script vocabulary for the third grade students at SDN Sarirogo Sidoarjo.

Research was done by quantitative approach by experiment method. The research used two classes; there were control and experiment class using pre test-post test design. Research data shows: analysis normality result in experiment class is 0,164 and in control class is 0,149. Both group has >0,05 or 0,5% significance. So, it can be concluded that data for each group are normal distributed. Homogeneity test result obtained value of homogeneity from critical thinking earn 0,661 significant value. The number of significance >0,05. So, it can be concluded that variant sample are homogeneous. The average score of experiment class is 84, 00 and control class is 59,75. Then by seeing the test result of independent sample of T-test obtained that (t-count) is 7,248 and (t-table) 1,686. If we do a comparison t-count 7,248 >t-table 1,686 and the result of sig. 2 is 0,000>0,05 so Ho denied that means there is a significant difference. The result indicates that there is difference result of study between control and experiment class.

The conclusion of this research are: 1) using media bungarawa influences on the learning result of writing Javanese script vocabulary for the third grade students at SDN Sarirogo Sidoarjo; 2) creativity influence the learning result of writing Javanese script vocabulary for the third grade students at SDN Sarirogo Sidoarjo, and; 3) using media bungarawa and creativity influence the result of writing Javanesescript vocabulary for students that come from social background of Javanese ethnic group.

Keywords: media, creativity, vocabulary, Javanese

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I. Preliminary

Minister of Education and Culture (Permdnikbud) Regulation Number 79 of 2014 mandates the local curriculum content in 2013 in Article 1. Local content (mulok) is a study material or subject (mapel) that is charged and processed in learning about local potential and wisdom. Some of the most essential objectives of local content are to introduce students to their environment and to provide capital competence and expertise to live in the community. Javanese language learning activities must include local wisdom, content, and the delivery media.

“Language learning is very appropriate to elevate local wisdom because through language, social values in the area can be conveyed. Language has the ability to concoct locality values that make readers have wisdom and positive attitude in interpreting the value of local wisdom, which is a national identity.”(Manurung, 2013, p.112)

A certain area considers traditional clothing needs to be preserved; clothing needs in the curriculum are subject to these needs. One form of local wisdom in the curriculum is the writing of Javanese script.

The basic theory of Bunga Rawa media is cognitive growth expressed by Jerome S. Burner. Three stages of intellectual development according to Bruner are: (1) active (enactive); (2) iconic (iconic); (3) symbolic (symbolic). Media can be interpreted as a technique during the learning process because there are ways to achieve optimal learning goals and make it easier for students to understand the contents of the subject matter. This is in accordance with the following opinion Latuheru (1988), that all forms of tools, techniques and materials that are used in the teaching and learning process to make interactions between teachers and students
in an effective and effective way is a form of learning. (p.14). This opinion is supported by the definition of media by Hawkes and Romiszowski (2001), which states that not all learning media are effective media. (p. 12). Media that has been well planned to carry out teaching is said to be an effective medium. This opinion emphasizes the importance of determining planning to determine effective media for learning.

Learning is meaningful if it can provide a stimulus in the development of creativity, according to Maley and Peachey’s statement (in Council, 2017) which states that creativity is at the heart of a learning activity as outlined in learning devices such as syllabi. (p.155). Further explained that creativity is closely related to critical thinking skills and problem-solving skills. Learning does not live without creativity in the process. This opinion is in line with the statement of Henriksen et al. (2018) that, "Creativity is widely considered to be a key construct for twenty-century education." (P.1). Creativity as a center for developing new ideas in learning. That is why creativity is expressed as the core of learning.

Creativity can be gained through the experience of studying material. According to Don and Robert (2016) people who are able to create (creative) must have deep abilities in their fields as a form of involvement and experiment in their fields. Creativity arises by exploring a field and gathering information from the experience gained. Previous opinions were supported by the opinion of Brewster (2017) who stated that experience can be obtained by better understanding and can help be more creative. (p.307). The experience of being the main actor in building creativity and even experience also helps other people to be creative.

Hamza and Hassan (2015) argue that creativity is a cognitive ability and a problem-solving process that allows everyone to use their intelligence in a unique form and produce a work. (p.587). Creativity is a manifestation of the most original cognitive abilities and cognitive abilities in creativity can solve problems and produce products as their manifestations. Creativity is an individual ability. Thus, each individual has the results of creativity that is different from the others. Creativity can be a product after using thinking skills. This uniqueness is what causes a few individuals to develop their creativity. A creativity represents a revolutionary style at the highest level of an award that can only be achieved by a few people. This is supported by the opinion of Zazkis (2016) who states that creativity is a form of revolutionary expression and the highest level of achievement that is limited to individuals. (p.3). The limited individuals referred to are only certain people who can have abilities.

Diverse products of creativity, discovery is the most concrete form of creativity. All forms of discovery are indicators of a development that shows an important part of a high creativity. Sendurur, Ersoy and Cetin (2016) stated, "The findings indicated that material developed in familiar domains were higher in creativity than those of the unfamiliar." (P.1). Creativity development needs to be supported by the right media. Conventional media and modern media adapted to learning objectives can hone students’ creativity while studying. Based on some of these descriptions, creativity in this study is indicated by the discovery of a combination of Javanese alphabet letters as many words as possible using bunga rawa media. Students gain learning experience with the stages of developing creativity through a series of trial and error activities, continuously to find letter combinations that can form words. The more words found more and more combination of Javanese scripts, the more new ideas. The more new ideas means the higher the creativity.

Rusyan, et.al. (1989) defines learning is a series of activities in the form of behavioral changes (from not knowing to knowing). (p.9). Sutowijoyo (2001) defines learning as an activity to achieve behavioral change (from not knowing to do something to knowing to doing something) that is relatively unchanged. (p.1). Learning is also interpreted as a process of behavior change toward a better direction. Behavior changes consist of cognitive, affective, and psychomotor domains. Cognitive domains are knowing, understanding, applying, analyzing syntheses, and evaluating. This cognitive domain can be observed from the results of evaluation activities after receiving the learning experience. These learning outcomes can be used as evidence of achieving learning goals and improving student abilities. This is in accordance with the opinion expressed by Rahmawati (2015). In her thesis she stated that the level of students’ ability to achieve learning goals can be proven through evaluation activities at the end of learning activities. (p.31).

Effective domain is accepting, responding, judging, organizing, and making character. Psychomotor domains include initiatory, pre-routine, and routinized. Psychomotor also includes productive, technical, physical, social, managerial, and intellectual skills. According to Bloom’s statement (in Supriono, 2009) cognitive, affective, and psychomotor abilities are a unit of learning outcomes. (p.6). Learning outcomes that show changes including cognitive, affective and psychomotor abilities means showing behavioral changes. The behavior referred to thoroughly is not in one aspect. All aspects of human potential that change are forms of learning outcomes. This opinion is supported by Jihad and Abdul (2012) who stated that sedentary behavior from the cognitive, affective, and psychomotor domains of the learning process carried out in a certain time is the result of learning. (p.14). From these opinions, it can be concluded that the understanding of learning outcomes is a change in sedentary behavior from the cognitive, affective, and psychomotor domains and all aspects of humanity. Learning outcomes in this study are oriented to the cognitive aspects by referring to the
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learning objectives when using the media. Learning outcomes based on learning objectives are students can write words in Javanese script after using media.

Exploded media can directly increase the ability of students with the largest percentage according to the cone of the Dale experience (Cone Dale’s Experience). The media used by involving as many senses as possible contributes greatly to understanding. The more senses involved, the greater the ability acquired. The highest ability in the learning process includes the ability to analyze (analyze), design (design), create (create), evaluate (evaluate). Analytical skills include several indicators including identifying, and using concepts that have been understood previously. Identification is characterized by drawing conclusions based on information obtained. “Children’s learning through their own experience is important aspect”. (Shah, 2016, p.82). Creativity is also associated with the ability of educators to create challenges for students, so that they are challenged to think outside the habit through stimulation and linkages with the surrounding environment. Based on the statement, to challenge students and create stimulating, engaging environment, instructors need to assist them in terms of outside of the box in critical and creative ways. (Paolini, 2015, p.22).

The research conducted by Deta et al. in 2013 showed that groups of students with high creativity had a good average learning outcomes compared to other groups. (p.33). The creativity criteria in the study are based on the many solutions found in problem solving. The more solutions found, the easier the problem is solved. So, creativity in solving problems supports the achievement of student learning outcomes. The research was supported by the statement “Creativity is a person’s ability to solve problems in a new way” (Gufron, 2011, p.75). The process of creativity comes from the learning process carried out independently. The role of the teacher during lessons to support the emergence of student creativity is by providing opportunities for students to learn independently. The statement is supported by the opinion that “selected independent learning activities should help to develop creative and critical thinking skil” (Sousa, 2012, p.69).

Based on the curriculum formulation of Sarirogo Elementary School, the ability to learn language in local content is expected for the third grade students of SD Sarirogo in the second semester of the 2018/2019 academic year to write skills in Javanese script. According to Djuharie (2005) writing skills can be nurtured and trained as often as possible so that they can develop as many exercises. (p.120). This opinion is in line with Ebo (2005) which states that all people who are nurtured and trained can write. (p.1). The ability to write can be owned by everyone who gets coaching and training continuously. It can be interpreted that the more often trained, the better the writing skills can be. Grigoryan (2017) states that writers who practice can continue to improve the quality of their writing and sharpen their writing skills. (p.16).

Old Javanese script is the chain of development of the script towards the script ha-na-ca-ra-ka. Data on alphabet forms were obtained from inscriptions scattered in areas in Indonesia. Writing inscriptions is carried out by officers specialized in the writing field called citralekha. A citralekha comes from the circles of the palace, region or village. The scope of the place of origin of citralekha influences his work. (Rokhyatmo, 1996, p.17). It can be said that the creativity of a citralekha influences the writing style of the language style.

Caspalis in "Indonesian Paleography" which (in Atmodjo, 1994) classifies the development of Javanese characters on several stages, namely, a) Scripture Pallawa awa; b) the final Pallawa script; c) Early Kawi; d) Final Kawi; e) Majapahit and regional script; f) New Java. (p.8). The New Javanese script is a continuation of the Old Javanese Scriptures which in its development experienced differences. Systematically these differences are arranged as follows:

![Figure 2.4. Development of Javanese Script](image-url)
The New Javanese script has an upright line on the left and right of the script. In the Old Javanese script, no periodization is only marked with a literary writing model. Research on literary forms or paleography in Indonesia was initiated by A.B. Cohen Struat with his work entitled "Kawi Oorkonden in Facsimile met Inleiding en Transcriptie". If it is traced from the historical development of Javanese script writing, it seems that the journey of the development of characters from the past is very long. Therefore preservation of Javanese script writing needs to be done. The preservation referred to refers to understanding, writing techniques, form letters, and spelling systems.

II. Research Methods

This research is a type of Quasy Experiment, with a quantitative approach that aims to reveal causal relationships between variables and examine the effects or effects of these variables. In this study, it is expected that there will be an impact of the treatment in the experimental class. The treatment in question is the use of bunga rawa media and student creativity. The subjects of the study were the third grade students of SD Sarirogo in the academic year 2018/2019. Class III Sarirogo Elementary School consists of two classes namely class IIIa and class IIIb. Class IIIa consists of 32 students consisting of 11 female students and 21 male students. Class IIIb is 32, consisting of 12 female students and 20 male students. The study was conducted for the second semester of Javanese language content on basic competencies 4.4 Reading and writing Javanese characters. Class IIIa was treated as an experimental class which received learning treatment using bunga rawa media while class IIIb as a control class as a comparison of the treatment results. Research location of Sarirogo Elementary School in Sidoarjo District, Sidoarjo Regency. This research is planned to last for 6 months. It starts from the initial observation to find the problem to prove the hypothesis. Experiments in the control class were conducted in the second semester of the 2018/2019 academic year.

This study uses a pre-test post design. As a first step, the two groups were tested to find out the initial learning outcomes. After the experimental class received treatment using bunga rawa media and the control class did not use bunga rawa media, a post test was conducted to determine the learning outcomes of the two groups. This research can be presented in the following table

<table>
<thead>
<tr>
<th>Learning Creativity</th>
<th>Using bunga rawa media</th>
<th>Not using bunga rawa media</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>A1C1</td>
<td>A1C2</td>
</tr>
<tr>
<td>Low</td>
<td>A2C1</td>
<td>A2C2</td>
</tr>
</tbody>
</table>

Table 3.1. Research design

Information:
A1C1: Learning outcomes by giving treatment to the experimental class for students who have creative creativity
A2C1: Learning outcomes by giving treatment to the experimental class for students who have modified creativity
A1C2: Learning outcomes without giving treatment to the control class for students who have creative creativity
A2C2: Learning outcomes without giving treatment to the control class for students who have modified creativity

This study uses the SPSS program as a data analysis technique with the t test. This test was conducted in an effort to obtain accurate and accurate data. The t test can show:
1. Differences in learning outcomes in the control and experimental groups
2. Significant influence of two types of samples
3. The effect of treatment on the control and experimental groups
The t test used in this study is the independent sample test. In addition to the t-test, the following test steps are carried out for analyzing the research data.

1. Normality Test

The sample studied was tested by a normality test to find out whether it came from a population that was normally distributed.
2. Homogeneity Test
To find out the similarities between two populations, a homogeneity test was carried out. The homogeneity testing requirements are as follows:

a. If Fcount < Ftable then Ho is accepted or data comes from homogeneous data
b. If Fcount > Ftable then Ho is rejected or data comes from homogeneous data

3. Test the Hypothesis
Data that has been distributed normally and homogeneously can be tested hypotheses using parametric statistics to determine the difference between the experimental class and the control class. The technique used in this study is a two-track ANOVA with SPSS. The steps of hypothesis testing are as follows:
Ho: there is no difference in learning outcomes, between students who learn to use media bunga rawas and creativity with students who study without using bunga rawa media and high creativity
Ha: there are differences in learning outcomes, between students who study using bunga rawa media and high creativity with students who study without using bunga rawa media and creativity.

III. Results
1. Double Regression Test
This study uses multiple regression to find out and analyze the effect of variable X (Media Usage and Creativity) on the Y variable (Learning Outcomes). Data is processed statistically by using the help of the SPSS version 22 system.

The results of multiple regression analysis on research variables can be seen in the following table:

<table>
<thead>
<tr>
<th>Coefficients*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Posttest.Eksperimen

Decision Making Double Regression Test

a. If the Sig value is > 0.05, then the X variable does not affect the Y variable
b. If the Sig value is < 0.05, then the variable X has an effect on the variable Y

The results of multiple regression tests in table 4.24 are described as follows:

a. For the Effect of X1 (Use of Media) on Y (Learning Outcomes) of 0.011 > 0.05 so it is concluded that there is an influence of X1 (Media Use) on Y (Learning Outcomes)
b. For the Effect of X2 (Creativity) on Y (Learning Outcomes) of 0.000 > 0.05 so it is concluded that there is an effect of X2 (Creativity) on Y (Learning Outcomes)

2. Test F (Simultaneous)
This simultaneous F or test implementation is to find out whether the variables X1 (Media Use) and X2 (Creativity) simultaneously or individually affect the variable Y (Learning Outcomes).

The results of the F or simultaneous tests on the research variables are in the following table:

<table>
<thead>
<tr>
<th>Table 4.25 F Test Results (Simultaneous)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANOVA*</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Posttest.Eksperimen
b. Predictors: (Constant), Kreativitas, Peng.Media

F Test Decision Making

a. If the Sig value is > 0.05, then the variables X1 and X2 simultaneously do not affect the variable Y
b. If the Sig value is < 0.05, then the variables X1 and X2 simultaneously affect the variable Y

Based on table 4.25 shows a significant value for the influence of X1 (Use of Media) and X2 (Creativity) simultaneously (simultaneously) against Y (Learning Outcomes) is equal to 0.000 < 0.05 so it is concluded that there are influences X1 (Media Usage) and X2 (Creativity) simultaneous (together) with Y (Learning Outcomes)
3. Determination Coefficient Test
The implementation of the Coefficient of Termination test in this study is to determine the magnitude of the effect of variables X1 (Media Use) and variable X2 (Creativity) simultaneously (simultaneously) on the variable Y (Learning Outcomes).

The results of the Coefficient Termination test on the research variables are in the following table:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.968</td>
<td>.938</td>
<td>.934</td>
<td>2.073</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Kreativitas, Peng.Media

Based on the above results show the value of R Square of 0.938, it can be interpreted that the influence of X1 (Use of Media) and X2 (Creativity) simultaneously (simultaneously) against Y (Learning Outcomes) is 93.8%.

4. Partial Test
The implementation of the partial test on the data of this research aims to determine whether the independent variable consists of variables X1 (Use of Media) and X2 (Creativity) partially or individually influences the variable Y (Learning Outcomes)

The results of the Partial test on the research variables are in the following table:

<table>
<thead>
<tr>
<th>Variabel X</th>
<th>t Sig</th>
<th>Taraf</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Use of Media (X1)</td>
<td>0.000</td>
<td>0.05</td>
</tr>
<tr>
<td>Creativity (X2)</td>
<td>0.000</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Tolerance Decision Making
a. If the Sig value is > 0.05, then there is no significant effect between variable X and Y
b. If the Sig value is < 0.05, then there is a significant effect between variable X and Y

Based on the results of the partial test above shows that X1 (Use of Media) by obtaining a Sig value of 0.000 <0.05. So from the results it can be concluded that X1 (Media Usage) affects the variable Y (Learning Outcomes). While at X2 (Creativity) by obtaining a Sig value of 0.000 <0.05. So from the results it can be concluded that X2 (Creativity) affects the variable Y (Learning Outcomes)

Data description and analyst requirements test have shown that two data are normally distributed and homogeneous, then hypothesis testing can be carried out. The hypothesis of this study is:

Ho: The use of Bunga Rawa media and creativity does not affect the learning outcomes of writing Javanese script vocabulary for third grade students at SDN Sarirogo Sidoarjo.

Ha: The use of Bunga Rawa media and creativity influenced the learning outcomes of writing Javanese script vocabulary for third grade students at SDN Sarirogo Sidoarjo.
Table 4.28 shows the results of the analysis with the Independent test T-test samples at the pretest obtained a tcount of 0.787. The value of ttable at (df=62) and the real level of 0.05 is 1.670, if a comparison is made then tcount < ttable with the result of sig. 2 tailed 0.434 > 0.05 and said to accept Ho which means that there is no significant difference. Which means there is no difference in student learning outcomes between the control class and the experimental class at the time of the pretest. Whereas in the Posttest there is a tcount of 4.808. The value of ttable at (df=62) and the real level of 0.05 is 1.670, if a comparison is made then tcount > ttable with the result of sig. 2 tailed at 0.000 < 0.05 and said to receive Ha which means that there are significant differences. Which means that there are differences in student learning outcomes between the control class and the experimental class at the posttest.

IV. Discussion

Based on the results of the analysis of multiple regression, tests indicate that the analysis of the media use variable (X1) on the learning outcome variable (Y). The results of the analysis of the study are in line with Bruner’s theory, at three stages of the development of knowledge. In the first stage the bunga rawa media has arising letters that can be touched, touched by students as the initial stage of learning called the active stage. After students manipulate the objects of three-dimensional letters, students can translate them into two-dimensional objects in written form, as the second or iconic stage.

Based on the results of the analysis of the normality test the creativity variable obtained a significant value of 0.087 > 0.05 or > 5%. It can be concluded that the data on student creativity is normally distributed. While the results of the multicollinearity test in the table above show that the tolerance value on the creativity variable (X2) > 0.10 or 0.110 > 0.10 and on the VIF value on the creativity variable (X2) < 10.00 or 9.101 < 10.00. From the results of these tests it can be concluded that there is no multicollinearity in these variables. Furthermore, the results of heteroscedasticity test showed that the value of Sig on the variable creativity (X2) obtained 0.431 > 0.05. So from the results of heteroscedasticity test proves that these two variables are greater than 0.05. So it can be concluded that there is no heteroscedasticity.

Based on the results of research that has been analyzed in chapter IV, to find out and analyze the influence of variables X1 and X2 (Use of Media and Creativity) on the Y variable (Learning Outcomes) using the F test. Based on the results of SPSS data analysis, the F test results obtain significant values for the influence of X1 (Media Usage) and X2 (Creativity) simultaneously (together) against Y (Learning Outcomes) is 0,000 < 0.05 so it is concluded that there are influences of X1 (Media Usage) and X2 (Creativity) simultaneously (together) to Y (Learning Outcomes). The magnitude of the influence of the two variables using the Coefficient of Termination Test which obtained the value of R Square of 0.938, it can be interpreted that the influence of X1 (Use of Media) and X2 (Creativity) simultaneously (together) on Y (Learning Outcomes) is 93.8 %.

V. Conclusion

The results of multicollinearity test and heteroscedasticity test results prove that multicollinearity does not occur and heteroscedasticity does not occur in all variables. The conclusions that can be taken are based on the description of the research discussion, namely:

1. The use of Bunga rawas media has a positive effect on the learning outcomes of writing Javanese script vocabulary for the third grade students at SDN Sarirogo Sidoarjo. The data used are the results of the post test after media use. Learning outcomes of 10 students in the experimental class are in the range of 100 values supported by the results of multiple regression test analysis indicating that the Sig value in the media use variable (X1) obtained 0.011 < 0.05. From these results it can be concluded that there is an influence of the media use variable (X1) on the learning outcome variable (Y).

2. Creativity has a positive effect on the learning outcomes of writing Javanese script vocabulary for the third grade students at SDN Sarirogo Sidoarjo. The data used is the result of creativity assessment. The results of the observation showed that 25 students were at a high level of creativity supported by the results of the analysis of multiple regression tests indicating that the Sig value on the creativity variable (X2) obtained 0,000 < 0.05. From these results it can be concluded that there is a variable influence Creativity (X2) on the learning outcome variable (Y).

3. The use of media Bunga rawas and creativity simultaneously (simultaneously) has a positive effect on the learning outcomes of writing Javanese script vocabulary for the third grade students at SDN Sarirogo Sidoarjo. The 19 student learning outcomes with the use of bunga rawa media were directly proportional to the number of students who had high creativity, namely 25 students. These results are supported by the results of the F test obtained a significant value for the effect of X1 (Media Usage) and X2 (Creativity) simultaneously (simultaneously) against Y (Learning Outcomes) amounting to 0,000 < 0.05 so it is concluded that there is influence X1 (Media Use) and X2 (Creativity) simultaneously (together) to Y (Learning Outcomes). The magnitude of the influence of the two variables using the Coefficient of

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Termination Test which obtained the value of R Square of 0.938, it can be interpreted that the influence of X1 (Use of Media) and X2 (Creativity) simultaneously (together) on Y (Learning Outcomes) is 93.8%.

References


