The Influence of *Contextual Teaching and Learning* Approach and Learning Creativity on Students' Learning Results

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Abstract: The study aims to investigate the influence of contextual teaching and learning approach and learning creativity on students' learning results. It is quantitative research with ex post facto design involving 95 students selected through purposive sampling technique. Data were analyzed using classical assumption tests and multiple linear regression analysis techniques. The results showed that Contextual Teaching and Learning approach and Learning Creativity positively and significantly improve students' learning results. Learning creativity dominantly determines the students' learning results. Students' creativity is related to curiosity, discipline, activeness to ask questions, independence, attention to the material, critical and periodical thinking, great memory, and extensive knowledge. The implementation of the Contextual Teaching and Learning Approach boosts students' activeness in learning, widens their knowledge, deepens their understanding, and assists them in practicing the material and reflecting each knowledge to achieve the learning target.

Keywords: Contextual Teaching and Learning, Learning Creativity, Learning Results, Students' Creativity, Learning Process

INTRODUCTION

Students' learning results refer to the learning achievement (Mardapi & Kartowagiran, 2009) and experience got by students in the learning process (Al-Tabany, 2017). Learning goals can be achieved when students understand and acquire knowledge given through learning (Serdyukov, 2017). Learning results are affected by the selection of the learning model applied by teaching in the learning process (Olinan & Sujatmika, 2017; Tamam Syaifuddin et al., 2021). Achieving learning goals indicates that students are successful in joining the learning activities (Sari & Wulanda, 2019). It includes the proper and appropriate learning model. The learning model illustrates steps of learning activities, and a teacher can adjust the learning environment to positively influence the learning results (Aryawan et al., 2014). Students' success in achieving the learning goal can change their behaviors indicated by their readiness and understanding of education, knowledge, and skills.

The learning achievement in many schools is still low. Some schools have low learning achievement (Muryanti et al., 2020)…. 57% of students had some scores not fulfilling the minimum standard (Pratama et al., 2019),

scores of science subject tend to be low thus needed to be improved. The learning activities are less able to stimulate students' curiosity, so they are not active in following the science class (Simamora et al., 2019). The teacher used the conventional method, causing students not to motivate to follow the lesson; thus, their learning achievement is low (Dea Handini, Diah Gusrayani, 2016; Wardhani & Krisnani, 2020). The teaching method applied is less appropriate, making the learning activities ineffective and efficient. Students do not understand the material delivered by teachers, which affects their learning results (Fauziddin & Mayasari, 2018). Furthermore, students' creativity and learning results are still low because many of them are still unable to deliver ideas and have limited mediums to express their creativity (Natty et al., 2019). It illustrates that students learning achievement is still low, and teachers need to improve it by applying interesting and creative methods and proper learning approach and strategy.

Learning creativities influence the students learning results and achievement (Kesuma et al., 2020; Yuliastuti, 2020). Creativity is the students' ability to think and respond to a problem quickly and flexibly from multiple perspectives and come up with ideas. Creativity is a process of discovering, making, combining, and transforming ideas into a novel thing based on available information and data (Annisah et al., 2020; Natty et al., 2019). (Jennett et al., 2016; Zare et al., 2016), stated that creativity allows someone to understand gaps or barriers that can be modified to obtain a goal. (Ricardo & Meilani, 2019). Some studies show a significant correlation between creativity and the learning results of Indonesian language subjects in grade V of MI Ma'had Islamy Palembang, which indicates that creativity improves students' learning results (Botty, 2018). Learning creativity is a complex topic related to reasoning skills, flexible and original thinking, and the ability to develop an idea (Karwowski et al., 2020; Zioga et al., 2020).

Besides learning creativity, the learning model with Contextual Teaching Learning (CTL) approach can improve students' learning results. Contextual Teaching and Learning is a concept which helps teachers to connect between the material and real situation faced by students so that students can be stimulated to apply the knowledge they have in their real-life both in families and societies (Aliyyah et al., 2020; Jumiati, 2020; Tamam Syaifuddin et al., 2021) illustrated situation and condition of students that act as the learning subject (Adim et al., 2020), and assists teachers to connect between topic and materials presented in the learning activities and the real-life and to motivate and push students to implement the knowledge they have in family, societies, and nation (Berns & Erickson, 2001) learning and teaching strategy should involve students by directing them applying the material in their daily lives (Sufianto, 2019). CTL learning model can change the way students learn, which previously waits for information from teachers to be meaningful learning by finding out the concept of the material they learn on their own. It is expected to influence the quality of the learning process, and students' learning results can be improved (Nurhidayah et al., 2016); students will find a meaningful correlation (Afni & Hartono, 2020) because the criteria of CTL theoretically give a chance to students to analyze data, guide them to find the concept of topic and material they learn, and assist them in gathering and analyzing data. (Dewi & Primayana, 2019). Thus, implementing the Contextual Teaching Learning approach supported by learning creativity allows students to be skillful, diligent, and disciplined in the learning process. It is beneficial to facilitate them achieving the goal of the educational process (Berns & Erickson, 2001; Suhartono, 2018).

METHODS

It is a quantitative study with an ex-post facto design (survey method) (Sugiono, 2016). *The ex-post facto approach aims to find out factors causing changes in attitude and phenomena resulting from an event (Sharma, 2019) behavior or other things that chang*e all independent variables (Cohen et al., 2021). Primary data were obtained from a tabulated questionnaire, and the available secondary data supported them. The research population was all students, while the samples were selected using a nonrandom sampling technique (purposive sampling). Three eight graded classes with 95 students in Junior High School 7 Barru were selected as samples. Data were analyzed using classical assumption test with multiple linear regression. Before that, we performed normality, heteroscedasticity, multicollinearity and autocorrelation tests on the data (Hilgers et al., 2018).

RESULTS AND DISCUSSION

Results

Multiple linear regression analysis aims to determine the effect of using the CTL approach and learning creativity on student learning outcomes in Indonesian Language subjects at Junior High School 7 Barru. Before describing the results of the interpreted multiple linear regression analysis, we make the following classical assumptions:
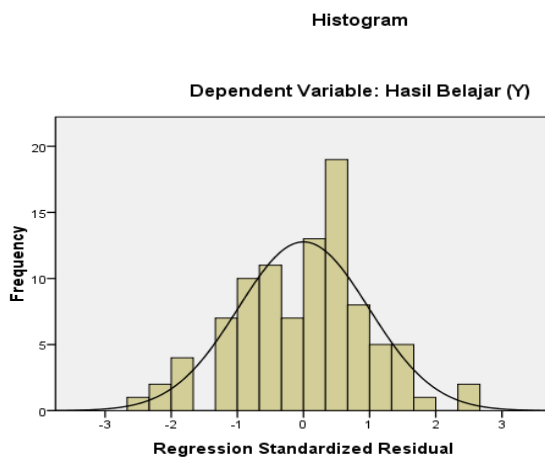
Histogram

Dependent Variable: Hasil Belajar (Y)

Figure 1. Residual Normality

The figure above shows the normality assumption on normally distributed multiple linear regression. The histogram graph facing up shows this. Furthermore, a normal probability plot diagram is shown as below:

Normal P-P Plot of Regression Standardized Residual

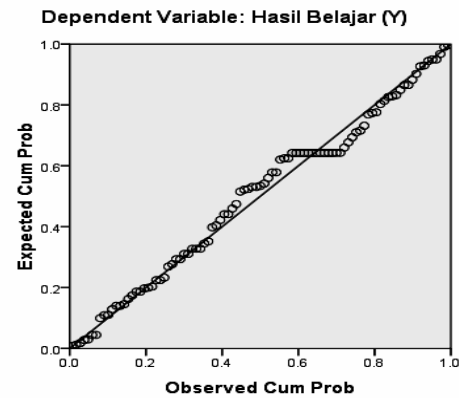**Dependent Variable: Hasil Belajar (Y)**

Figure 2. Normal P-P Plot

The display above shows a normal data distribution because the plot follows a straight line. In means that from the figures, the residuals were normally distributed. Then, the heteroscedasticity is determined by the scatter diagram between dependent and residual variables, as depicted below:
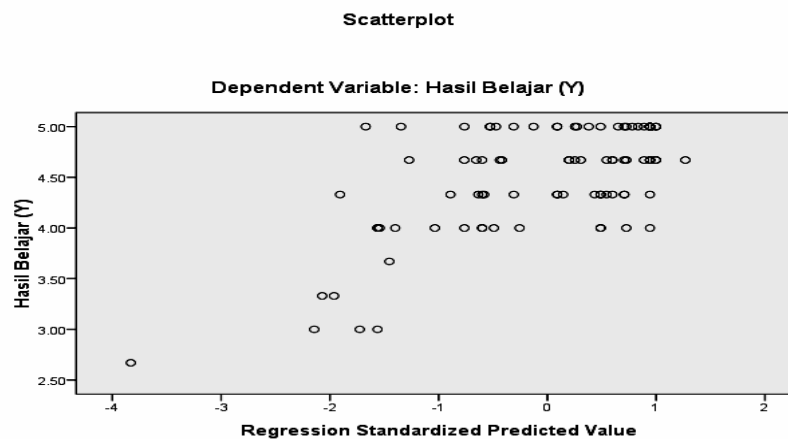
Scatterplot

Dependent Variable: Hasil Belajar (Y)

Figure 3. Residual heteroscedasticity

The scatter above shows no indication of heteroscedasticity because the plot spreads evenly above without forming a particular pattern. Based on this, the classical assumptions for multiple linear regression analysis have been met. Then, the results are presented in the table 1.

Table 1. Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.132	.345		6.186	.000
	CTL (X1)	.396	.108	.100	3.666	.003
	Learning Creativtiy (X2)	.640	.100	.728	6.414	.000

a. Dependent Variable: Learning Results (Y)

Those results are written using the following equation: $Y = 2.132 + 0.396X_1 + 0.640X_2$. The formula shows that the value of Y was 2.132, meaning that the constant value improves if the (X1) and (X2) do not change. The value of regression coefficient (X1) with a positive direction indicates that students' learning results are influenced at the value of 0.396. and the value of regression coefficient (X2) with positive direction indicates that students' learning results are influenced at the value of 0.640.

Furthermore, the t value of the variable of CTL approach: $t_{count} = 3.666$ while the t_{table} of n 95 was 1.975 so that the $t_{count} < t_{table}$ (3.666 > 1.975) thus the treatment influences the students' learning results. The significance value of 0.003, smaller than 0.05, means that X1 significantly influences Y. Coefficient of t score of learning creativity variable $t_{count} = 6.414$ while the t_{table} value for n 95 is 1.975 so that $t_{count} < t_{table}$ (6.414 > 1.975) thus X2 influences Y. The significance value was 0.000. Thus 0.003 < 0.05 means that learning creativity significantly influences students' learning results.

The study shows that X2 is the variable with a dominant influence on Y with b = 0.640. It is higher than the b score of X1, which is only 0.396.

Table 2. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.676	2	5.838	35.358	.000[a]
	Residual	15.190	92	.165		
	Total	26.867	94			

a. Predictors: (Constant), Kreativitas Belajar (X2), CTL (X1)

b. Dependent Variable: Learning Resuts (Y)

Value of F count = 35.358 while the F table score was 2.662. F count was bigger than the value of the F table (35.358 > 2.662). Thus it can be concluded that X1 and X2 have a simultaneous influence on Y. While the significance score was 0.000 < 0.05. A significant score below 0.05 shows the positive and significant influence. The summary model to see the influence of the independent variable on the dependent variable can be seen in the table 3.

Table 3. Summary Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.859[a]	.737	.622	.40634

a. Predictors: (Constant), Learning Creativity (X2), CTL (X1)

Summary Model R-value or correlation coefficient is calculated to see the simultaneous effect and R2 value or determinant coefficient to see the partial effect of the variables studied. The value of R = 0.859 means that the CTL approach and learning creativity simultaneously influence student learning outcomes. The proportion is 85.9 percent, with the remaining 14.1 percent influenced by other variables not examined.

The effect of the independent variable is known from the R2 value, which is 0.737. The CTL approach variables and learning creativity together affect student learning outcomes by 73.7 percent. In comparison, the remaining 26.3 percent is influenced by other variables that cannot be explained in the model.

Discussion

This discussion section describes the simultaneous effect of the two independent variables observed on the dependent variable. The CTL approach has a positive and significant effect on student learning outcomes. It shows that teachers have used the CTL approach in teaching and learning activities in the classroom. The steps for implementing CTL in learning are as follows: *Introduction* (a) The teacher explains the basic competencies that students must achieve and the importance of Indonesian language subjects according to the level of students' knowledge; (b) The teacher describes the learning procedure: (1) Students are divided into several groups according to their number; (2) Groups are asked to make observations; (3) Each student notes the important things; (4) The teacher responds to questions and answers about assignments; and *Core Activities*; (a) Doing observation; (b) Noting important points; (d) Discussing the findings in the group; € Reporting the findings in front of the class; (f) Each group answers questions from other groups.

CTL helps teachers teach learning material based on the condition of the class, and it pushes students to actualize knowledge they have in doing socialization with the community. Sanjaya (2016) argued that learning should be conducted naturally. CTL is an active method that emphasizes students' full participation in discovering the material they learn through socialization so that they are stimulated to study continuously.

Muslich (2019) stated that the philosophical base of CTL actualizes constructivism which emphasizes that learning is not only memorizing but also reconstructing new knowledge and skill through fact or natural proposition in life. The discussion indicates that the approach supports the learning concept, which involves students seeing the meaning of the material and correlating it to the real situation so that they are motivated to implement it.

Three components should be understood, namely:" CTL emphasizes students' participation to obtain material, students should be motivated to find the correlation between the material they learn and the real-life, students implement their material through acts in the classroom." Those aspects contribute to improving students' learning results on cognitive, affective, and psychomotor aspects.

Aningsih and Zahrani (2019) stated that learning creativity positively and significantly contributes to students' learning results. It is demanded in the life due to some reasons including: first, it gives a chance to students to actualize themselves; secondly, it allows students to find out various alternatives to solve a problem; third, it brings satisfaction to students related to their learning achievement; and fourth, it improves students' achievement.

Indrayani (2017) stated that cognitively, learning creativity is the ability to think quickly, flexibly, originally, and in detail. Affectively, learning creativity is indicated by strong motivation, curiosity, interest in multiple tasks, bravery to take the risk, never giving up, appreciating beauty, humor, interest in finding a new experience, and appreciating self and others. Darmadi D (2017) stated that from a psychomotor aspect, learning creativity is signed by producing an original creation and valuable product that can be transformed and be accounted for.

Liu and Ilyas (2020) argued that learning creativity focuses on students' ability to absorb the learning material. The teacher is not the only source of material, but he is one of many sources that students can access. Students are also demanded to be actively involved in the learning process so that learning creativity stimulates. Lasut (2017) stated that creativity could create new ideas or knowledge from various resources to support the learning process. Learning creativity allows students to get the maximum learning results.

CONCLUSION AND SUGGESTIONS

CTL approach and learning creativity simultaneously positively and significantly influence the learning results. It means that teachers should implement the CTL approach to help students improve their learning results. Learning creativity also has an important role in improving students' learning results. Among two variables observed in the study, learning creativity influences students' learning results more dominantly. Students' are stimulated to have curiosity about the material they learn, be disciplined in following the lessons, to actively ask a question, to independently do the task, to listen and pay attention to the material, to think critically and periodically, to be initiative, and to have a good memory and wide knowledge. CTL approach is also important to help students be more active, widen their knowledge, and understand and reflect on each knowledge to achieve effective learning results.

The use of information and technology-based CTL for teaching should be campaigned. Teachers should guide students to develop their creativity based on potential and skills to achieve better learning results.

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