Effect of project-based learning models and achievement motivation on students' short story text writing skills

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Article Info

ABSTRACT

The implementation of learning short story writing skills is still oriented towards completing tasks designed by the teacher. Also, it seems conventional, so developing students' short story writing skills takes time and effort. Through this research, the authors review the effect of the project-based learning model on learning outcomes for students with high and low achievement motivation; and the interaction between the project-based learning model and achievement motivation. This research belongs to the quantitative research that applies the experimental method, involving two sample classes: class X hospitality 2 as the experimental class and class X clothing 4 as the control class. The results of the data analysis provide conclusions. First, the project-based learning model influences student learning outcomes. Second, the project-based learning model influences students' learning outcomes with high achievement motivation. Third, project-based learning model influences the learning outcomes of students with low achievement motivation. The project-based learning learning model can be used as an effective alternative learning model in improving students' short story writing skills.

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Introduction

The teaching and learning process is a systematic process with a goal for students' development. This development can be in the form of behavior changes, including cognitive, affective, and psychomotor aspects (Louk et al., 2020; Nurhayati, 2020; Nurtanto & Sofyan, 2015). The students' changes are obtained from the processes, such as participation, two-way communication, and enthusiasm for learning. Teaching and learning processes that are packaged effectively and efficiently will enable students to carry out learning following learning objectives (Asmara dan Nindianti, 2019). According to Pancasila's (Five Principles of the Indonesian State) students' profiles, learning in the independent curriculum is a process to develop soft skills and students' character. Meanwhile, one of the essential skills for students is mastery of writing skills, especially for students at the vocational high school level, because writing is a process, reasoning activity, transformation, and communication, and has a vital role in language production(Fareed, et al., 2014; Sundem, 2006).

On the other hand, Afnita (2022, p. 50)explains that writing is an important language skill for students to master. In other words, writing is a creative skill in conveying experiences, events, knowledge, and human thoughts (Nadhifah, 2018, p. 633). Also, writing is a complex ability because writing activities require the ability to master aspects of language, content, techniques, and ideas that will be put into writing(Puspitasari,

2017). Meanwhile, the writing activities have several objectives, namely writing as a means of information (informative discourse); writing to convince the reader about some information (persuasive); writing to entertain either the writer or the reader, usually in this case in the form of literary writing, such as poetry, novels, short stories, and others; and write to express feelings and emotions. Moreover, Tarigan (2008) states that writing produces and expresses language as a form of written communication. From other perspectives, Afnita, et al. (2017, p. 316)state that students can write when students can express ideas clearly and use linguistic rules following applicable rules.

On the other bridge, short stories are narrative prose (Istigfara dan Afnita, 2020). Short stories are literary works written from the imagination and experience of the author. Rahayu, et al. (2021, p. 25) explain that short stories are writings that describe the story of someone in a particular place at a specific time. Also, in its physical form, short stories are fictional (Kosasih, 2012). Added by Attas, et al. (2021, p. 10)explain that short stories are also said to be fictional narratives (not argumentative analysis) and are presented relatively short. Although the stories poured into short stories are shorter than other literary works, short stories have a unique story that distinguishes them from other literary works. Short stories as literary works are not only enjoyed by the story but are also used as a means of learning for students at school (Kusmana dan Yatimah, 2018;Rahayu, et al., 2021).

Meanwhile, facts in the field show that learning short story writing skills is still oriented toward completing assignments designed by the teacher. The assignments given are dominantly sourced from printed books as the leading learning resource for students. A study conducted by Kasmita (2021) concluded that conventional learning models are not effective in improving learning outcomes, tend to cause students to be embarrassed to ask questions, and students' argumentation abilities are low. In addition, Mahdiyanto et al. (2016)also revealed the same thing that the cognitive domain is the result of the development of knowledge and skills. This means that the application of the project-based learning learning model requires students to practice critical thinking skills independently, gather information, and solve problems.A study conducted by Astuti (2021) on students' ability to write short story texts, shows that the use of conventional learning models produces unsatisfactory results because the average student learning outcomes do not reach the minimum completeness criteria. The same thing was expressed by Sari et al. (2017)that in the activity of writing short story texts, the conventional learning model is not very suitable because it does not provide opportunities for students to think broadly. Referring to learning outcomes, the average student is not skilled in writing because his dominant learning outcomes are low. Students' vocabulary mastery tends to be low, making it difficult to develop ideas into a text. Several factors become difficulties for students in writing short story texts: students find it difficult to develop ideas and concepts; students find it challenging to develop the intrinsic elements of short stories; in terms of language, it is difficult for students to utilize the structure of the language and Indonesian vocabulary; and lack of motivation towards short story writing skills (Oktapiyani, 2021;Puspitasari, 2017;Nurhidayati, et al., 2016).

In addition to several problems with students, it turns out that the teacher's role in learning is more dominant, resulting in the loss of opportunities for students to participate in learning actively; students are less motivated and have an impact on dominantly low learning outcomes. This case needs to follow the objectives of the Prototype curriculum, which prioritizes students' freedom of thinking and creativity. Through the In House Training (IHT) Implementation of the Independent Curriculum, Syarifah Fazlina (Personal Communication, July 2022) revealed that one of the learning models that are relevant to the current curriculum is a project-based learning model such as the project-based learning model because this model involves students directly to complete a project. In fact, teachers in schools still use learning models that are boring for students. Jana et al. (2021)states that the inherent characteristic of the conventional learning model is a teacher-centered teaching and learning process. Purwanto (2007)explains that the conventional learning model has several drawbacks, namely (1) it is passive and boring; (2) students are only skilled at making notes without any real understanding; (3) students find it difficult to understand the material being taught because they do not perform, analyze, interpret, and express directly the material being taught; and (4) the material delivered using the lecture method is difficult to understand. Although there is a lot of literature which states that the conventional learning model is not suitable to be applied to learning skills, this model also has several advantages. Delisda and Sofyan (2014)explain that the conventional learning model has advantages, namely (1) the number of students being taught can be more and students have the same opportunities as good listeners, (2) the concept initiated is to provide learning facilities to students, (3) the teacher has a great opportunity to manage the time of the teaching and learning process, and (4) the material can be conveyed easily because the teacher dominates the lecture activities in class.

Therefore, the project-based learning model's teaching and learning process significantly influences writing skills (Praba', et al., 2018;Lu, 2021). The project-based learning model has a high probability of practicing short

story writing skills (Ghamrawi et al., 2017; Slough dan Milam, 2013). This condition follows Mayasari, et al. (2016), who stated that project-based learning has a high potential to improve higher-order thinking skills, analysis, synthesis, and evaluation. The project-based learning model is appropriate for improving writing and concise story-writing skills Hasanudin et al. (2022). Even though this learning model is classified as an old learning model, the project-based learning model has many advantages compared to other learning models. Many have helped develop this learning model with the aim that students gain direct experience through a series of processes that have been passed(Mahendra, 2017). In other research, Islamiyah and Jayanti (2022) revealed that the project-based learning model is considered adequate and significant for application in short story writing skills because it can provide opportunities for students to channel their creativity directly and transparently. Furthermore, Nani, et al. (2018), through research conducted at the junior high school level with the type of Classroom Action Research (Action research), revealed that learning to write short story texts had increased using the project-based learning model. The researchers concluded that project-based learning was significantly used as a learning model for writing short story texts.

In addition, achievement motivation is considered a way to improve students' short story writing skills for learning success. It can support the goal of getting the best results for each student. Meanwhile, lacking encouragement and motivation can hinder students' writing skills. Novariana, et al. (2018)revealed that one way to improve students' writing skills is through strong encouragement and excellent opportunities to write concisely story writing skills. McClelland, et al. (1953) called this achievement the need for achievement. Through the theory of achievement motivation, he identified three types of basic needs: the need for achievement (n-Ach), the need for affiliation (n-Aff), and the need for power (n Pow). The need for achievement (n-Ach) is internal and has a good level of stability. McClelland, et al. (1953) stated that students with an orientation towards achievement have characteristics. First, students like conditions that demand personal responsibility in problem-solving; second, students tend to take moderate risks compared to low or high risks; and third, students always expect feedback in the form of constructive suggestions and criticism. In other definitions, Alpriyani, et al. (2019) explain that there is a significant influence between achievement motivation and writing ability. She reveals that project-based learning models can obtain innovative and constructive learning. Motivation is the heart of students; an increase in motivation is directly proportional to an increase in students' writing abilities (Al-Shourafa, 2012;Ahmed, et al., 2021). The explanation above explains that achievement motivation can influence learning outcomes and concise story-writing skills. Therefore, students are expected to have high achievement motivation to achieve learning goals.

The problems described show that the implementation of learning is still oriented towards completing tasks designed by the teacher, especially in the material for writing short story texts, the learning model used needs to follow the applicable curriculum, and students need more achievement motivation. This case is certainly not effective in improving the learning outcomes of short story writing skills. Therefore, a learning model with high potential is needed to improve higher-order thinking skills, analysis, synthesis, and evaluation, so the teaching and learning process is expected to be more meaningful. Through this research, the authors review the effect of the project-based learning model on the learning outcomes of both students with high and low achievement motivation; and the interaction between the project-based learning model and achievement motivation.

Method

Research Design

This research belongs to the quantitative research that applies the experimental method. In line with the objectives to be achieved, this study seeks to describe the effect of the treatment of project-based learning models and achievement motivation on the learning outcomes of short story writing skills. Factorial design is used to look at the interaction between the project-based learning model and achievement motivation on the learning outcomes of short story writing skills. Sugiyono (2014)explained that the factorial design is a modification of the true experimental design by considering the possibility of a moderator variable affecting the treatment of the results. The research design can be seen in the following figure.

	A1	A2
B1	A1B1	A2B2
B2	A1B1	A2B2

Figure 1. Research Design

Description:

A1   : The model of project-based learning
A2   : Conventional learning models
B1   : High achievement motivation
B2   : Low achievement motivation
A1 B1   : Short story writing skills taught using a project-based learning model with highachievement motivation.
A2 B1   : Short story writing skills are taught using conventional learning models with highachievement motivation.
A1 B2   : Short story writing skills are taught using a project-based learning model with lowachievement motivation.
A2 B2   : Short story writing skills are taught using conventional learning models with lowachievement motivation.

Population and Sample Research
The population of this study was 247 class X students of State Vocational High School (SMK) 3 Pekanbaru for the 2022-2023 academic year, divided into seven classes and four majors. Furthermore, the sampling was conducted using a purposive sampling technique based on certain objectives and considerations. Sampling was carried out with several considerations: the applicable curriculum, the results of interviews with subject teachers, and testing for normality and homogeneity of students' test scores. The normality test results show that all classes are normally distributed with Sig.> 0.05, and the results of the homogeneity test show that the population has a homogeneous variance with a Levene Statistic value = 0.436; db1 = 3; db2 = 233, and p-value = 0.854 > 0.05. Thus, this study involved two sample classes, namely Class X Hospitality 2, totaling 34 students, as an experimental class treated with a project-based learning model and Class X Clothing 4, totaling 35 students, as a control class (comparison group) treated with a conventional learning model.

Research Instrument
The instruments used in this study were tests and questionnaires. The instrument or tool used to measure the learning outcomes of short story writing skills is a performance test that considers predetermined indicators. Performance assessment as one of the assessment techniques includes all assessments in the form of writing, products, or behavior except tests in the form of multiple choice, matching, true-false, and short answers (Utomo and Ardiyarta, 2013). Furthermore, the instrument used to collect achievement motivation data is a questionnaire. The preparation of achievement motivation instruments refers to McClelland et al. (1953) and several other literature review sources relevant to this study's discussion. The prepared instrument will present favorable and unfavorable statements using a Likert scale measurement scale consisting of four alternative answers. Hence, the author presents the indicators for compiling the short story writing skill assessment.

Table 1. Short Story Text Writing Skills Assessment Indicator

No.	Assessment Aspects	Indicator
1.	Content	1. Suitability of the story with the theme 2. Creativity in developing the story 3. Completeness of the story
2.	Organization and presentation	1. Presentation of elements in the form of characters, plot, and background of the story 2. The integration of story elements 3. The logic of the story sequence
3.	Language	1. Choice of words or diction 2. Compilation of sentences 3. Use of figure of speech

The aspects assessed are 9 with a maximum weight of 5, so the total score of all aspects assessed is 45. Furthermore, to determine the value of student learning outcomes, the following formula is used.

$$N = \frac{\text{Obtained weight}}{\text{Maximum weight}} \times 100\,\%$$

The determination of the criteria for evaluating short story writing skills refers to the opinion of Nurgiyantoro (2017)as shown in the following table.

Table 2. Criteria for Assessment of Short Story Text Writing Skills

No.	Value Intervals	Letter	Qualification
1.	86 – 100	A	Very well
2.	76 – 85	B	Good
3.	56 – 75	C	Enough
4.	10 – 55	D	Not enough

Furthermore, the indicators used to compile the achievement motivation questionnaire are presented in the following table.

Table 3. Achievement Motivation Indicator

No.	Assessment Aspects	Indicator	Question	Total
1.	*Choice*	Have responsibility and perseverance in carrying out tasks.	Positive	5
			Negative	5
2.	*Persistence*	Likes challenges and strives to complete.	Positive	5
			Negative	4
		Expect concrete feedback to determine more effective actions in achieving achievements.	Positive	3
			Negative	3
3.	*Effort*	Have realistic goals according to their abilities	Positive	3
			Negative	3
		Consider the risks	Positive	3
			Negative	4
		Total		38

The instrument prepared will present fafourable (positive statements) and unfafourable (negative statements) statements with a measurement scale that is considered appropriate for asking students' opinions or attitudes towards achievement motivation, namely the Likert scale which consists of 4 alternative answers as follows.

Table 4. Likert Scale

No.	Pernyataan	Nilai Jawaban	
		Nilai Positif	Nilai Negatif
1.	Strongly Agree	4	1
2.	Agree	3	2
3.	Disagree	2	3
4.	Strongly Disagree	1	4

(Riduwan dan Sunarto, 2014)

Data Analysis

Data analysis in this study was carried out with the help of the IMB SPSS Statistics 26 application program (IMB Statistical Product and Service Solutions 26). Before testing the hypothesis, the first step that must be taken is screening data, called a prerequisite test with a normality test and homogeneity test. The normality test in this study was carried out through the Lilliefors test with the condition that if L0 < Lcritical or asymp. Sig. (2-tailed) > 0.05, then H0 is accepted sample data from a normally distributed population. Furthermore, if the significance value (p-value) is > 0.05, the data is declared homogeneous, then H0 is accepted. Furthermore, testing the hypothesis of the effect of the treatment of the project-based learning model is proven through the independent samples test technique with the provisions that if tcount ≥ ttable or p-value <0.05, then H0 is rejected. Thus the hypothesis proposed was tested by the data, so it can be concluded that there is a significant difference between the learning outcomes of students' short story writing skills taught by the project-based learning model and conventional learning models.

Results and Discussions

Descriptive Statistics

Before testing the hypothesis, this section describes the research data. Data were obtained from class X Hospitality 2 as an experimental class taught by applying a project-based learning model, and class X Clothing 4 as a control class taught by applying a conventional learning model. The two classes were given a

performance test, which was carried out to know the ability of students to write short story texts. After the learning process is complete, students in the experimental and control classes are asked to fill out a questionnaire to know students' level of achievement motivation.

Table 5. Descriptive Statistics of the Value of Learning Outcomes

Statistics		A1	A2	A1B1	A2B1	A1B2	A2B2
N	Valid	34	35	9	9	9	9
	Missing	1	0	0	0	0	0
Mean		82.38	72.26	86.11	78.00	80.44	69.44
Std. Error of Mean		1.381	1.555	2.017	2.630	2.968	3.966
Median		83.00	73.00	89.00	76.00	82.00	73.00
Mode		80[a]	69[a]	80[a]	69[a]	82	58
Std. Deviation		8.053	9.198	6.051	7.890	8.904	11.897
Variance		64.849	84.608	36.611	62.250	79.278	141.528
Range		31	40	15	20	29	35
Minimum		62	49	78	69	62	49
Maximum		93	89	93	89	91	84
Sum		2801	2529	775	702	724	625

Based on the descriptive statistics table above, several conclusions can be drawn. First, in the experimental class (A1), the highest learning achievement score is 93, and the lowest is 62. Meanwhile, the mean value (mean) is 82.38, with a standard deviation of 8.053. Whereas in the control class (A2), the highest learning achievement score was 89, and the lowest score was 49, the average value (mean) was 72.26, with a standard deviation of 9.198. Second, in the experimental class with high achievement motivation (A1B1), the highest learning achievement score was 93, and the lowest score was 78, with a mean value (mean) of 86.11 with a standard deviation of 6.051. Whereas in the control class with high achievement motivation (A2B1), the highest learning achievement score was 89, and the lowest score was 69, the mean value (mean) 78.00 with a standard deviation of 7.890; and third, in the experimental class with low achievement motivation (A1B2) the highest learning achievement score was 91, and the lowest score was 62, the mean value (mean) was 80.44 with a standard deviation of 8.904. Whereas in the control class with low achievement motivation (A2B2), the highest learning achievement score was 84, and the lowest score was 49, the mean value (mean) was 69.44 with a standard deviation of 11.897. Consequently, referring to the comparison of the average value of the short story writing skills of the two classes, it is known that in the experimental class that was treated with the project-based learning model, both those with high and low achievement motivation experienced a consistent increase. Hence, the short story writing skills of students treated with the project-based learning model were higher than the value of the short story writing skills of students treated with conventional learning models. This temporary decision will be a reference in testing the hypothesis.

Hypothesis Test of the Effect of Project-based Learning Models
The hypothesis testing in this study was carried out with the help of the IMB SPSS Statistics 26 application program (IMB Statistical Product and Service Solutions 26) using the t-test with the condition that if the p-value ≥ 0.05, it means that the population variances of the two groups are homogeneous. Meanwhile, referring to the homogeneity prerequisite test that the data has been tested to be homogeneous or the population variance of the two groups is homogeneous, the Equal Variances Assumed column is selected with the provisions if tcount $\geq$ ttable or p-value <0.05, then H0 is rejected. Thus, the hypothesis proposed is tested by the data, so it can be concluded that students' short story writing skills the project-based learning model teaches are higher than that of conventional learning models. The results of the analysis of hypothesis testing are presented as follows.

Table 6. Independent Samples Test Hypothesis 1

	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
Equal variances assumed	4.859	67	.000
Equal variances not assumed	4.869	66.296	.000

Based on the results of the independent samples test analysis, it is known that there are differences in the learning outcomes of students who are treated with project-based learning models and conventional learning models. This condition is evidenced by the independent samples test of the first hypothesis, in the line of equal variances assumed, the value of tcount> ttable (df = 67; α = 0.05), namely 4.859 > 1.66792 and Sig. (2-tailed)

= 0.000 <0.05 then H0 is rejected. Thus, the hypothesis proposed is tested by the data, so it can be concluded that students' short story writing skills the project-based learning model teaches are higher than that of conventional learning models.

On the other hand, a study conducted byHidayati and Nurjanah (2017) shows that using project-based learning models with Windows Movie Maker media can improve students' short story writing skills. These findings are evidenced by the average pre-test score of 42.4 increasing in cycle 1 to 78, a consistent and sustainable increase in the next cycle, namely the average value of cycle 2 is 85.4. The proof continues with the analysis results with the acquisition of tcount> ttable (dk = 19, α = 0.05), namely 6.992 > 1.729. Thus, the proposed hypothesis is tested by the data using project-based learning models with Windows Movie Maker media that effectively increase students' short story writing skills learning outcomes. The application of the project-based learning model allows students to complete projects for a long time; students can continue to be guided through the stages of writing short story texts. This model also allows students to interact with colleagues and help each other develop ideas that will be poured into stories. In addition, Hidayati and Nurjanah (2017)revealed that through the project-based learning model, students could increase their self-confidence to express themselves at work and increase good imagination.

Other findings were also expressed by Islamiyah and Jayanti (2022)with the research title "Analysis of Project-based Learning Models on the Effectiveness of Short Story Writing Skills," published in Senada (Online National Seminar) PBSI, Vol. 2, Issue 1. The results of this study indicate that the project-based learning model significantly influences the effectiveness of short story writing skills. The project-based learning model effectively applies the writing skill because it provides opportunities for students to construct assignments given by the teacher and ultimately produces work. Furthermore, Anggara (2017)revealed that the use of project-based learning models in learning to write could improve students' writing skills. This line is indicated by the percentage of cycle I = 64.77%, cycle II = 74.99%, and cycle III = 90.9%. Besides that, the increase in student learning outcomes in cycle I averaged 60.8, the moderate success of students in cycle II was 72.2, and in cycle III was 80.2. Thus, project-based learning models can improve students' writing skills.

Next, research conducted byHasanudin et al. (2022) also showed similar results. This study was conducted at the junior high school level with three stages of the method: observation, problem analysis and literature review, and monitoring and evaluation. The results show that the project-based learning model helps students improve their short story writing skills because this method allows them to write short story plots based on their daily experiences. Furthermore, Susana dan Efendi (2020) revealed that the project-based learning model improves learning outcomes in short story writing skills. In addition, this learning model is also influential and can increase the ability of cooperation among students and foster self-confidence, such as actively asking and arguing about a view.

Hypothesis Test of Project-based Learning Model with High Achievement Motivation
The hypothesis testing in this study was carried out with the help of the IMB SPSS Statistics 26 application program (IMB Statistical Product and Service Solutions 26) using the t-test with the condition that if the p-value ≥ 0.05, it means that the population variances of the two groups are homogeneous. Referring to the homogeneity prerequisite test that the data has been tested to be homogeneous or the population variance of the two groups is homogeneous, then the Equal Variances Assumed column is selected with the provisions if tcount ≥ ttable or p-value <0.05, then H0 is rejected. Thus, the hypothesis proposed was tested by the data, so it can be concluded that the short story writing skills of students with high achievement motivation are taught using project-based learning models higher than students with high achievement motivation are taught with conventional learning models. The results of the analysis of hypothesis testing are presented as follows.

Table 7. Independent Samples Test Hypothesis 2

	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
Equal variances assumed	2.447	16	.026
Equal variances not assumed	2.447	14.992	.027

Based on the results of the independent samples test analysis, it is known that there are differences in the learning outcomes of students who are treated with project-based learning models with high achievement motivation and conventional learning models with high achievement motivation. This result is evidenced by the independent samples test of the second hypothesis, in the line of equal variances assumed, the price of tcount > ttable (df = 16; α = 0.05), namely 2.447 > 1.74588 and Sig. (2-tailed) = 0.026 <0.05 then H0 is rejected. Thus, the hypothesis proposed was tested by the data, so it can be concluded that the short story

writing skills of students with high achievement motivation are taught using project-based learning models higher than students with high achievement motivation are taught with conventional learning models.

Meantime, students in the experimental class with high achievement motivation were treated with a project-based learning model with better learning outcomes than students in the control class with high achievement motivation treated with conventional learning models. This condition happens because the project-based learning model allows students to build their knowledge. Theoretically, the project-based learning model is based on constructivist and constructionist educational theories so that learning is directed so that students construct knowledge based on their experiences and prior knowledge and are mediated by their interactions with a project (Piaget, 1971;Papert, 1980).Also,Noprina (2019)explains that the project-based learning model can increase student activity in class. Active teaching and learning activities provide great opportunities and opportunities for students to express their talents and creativity. In line withUmmah, et al. (2019), the project-based learning model allows students to explore their abilities to the fullest. These findings are in line with the theory of achievement motivation that achievement motivation comes from the English word motive, which means to push or move.

A Test of the Hypothesis Model of Project-based Learning with Low Achievement Motivation
The hypothesis testing in this study was carried out with the help of the IMB SPSS Statistics 26 application program (IMB Statistical Product and Service Solutions 26) using the t-test with the condition that if the p-value $\geq$ 0.05, it means that the population variances of the two groups are homogeneous. Referring to the homogeneity prerequisite test that the data has been tested to be homogeneous or the population variance of the two groups is homogeneous, then the Equal Variances Assumed column is selected with the provisions if tcount $\geq$ ttable or p-value <0.05, then H0 is rejected. Thus, the hypothesis proposed was tested by the data, so it can be concluded that the short story writing skills of students with low achievement motivation are taught using a project-based learning model higher than those with low achievement motivation are taught using conventional learning models. The results of the analysis of hypothesis testing are presented as follows.

Table 8. Independent Samples Test Hypothesis 3

	t-test for Equality of Means		
	t	df	Sig. (2-tailed)
Equal variances assumed	2.221	16	.041
Equal variances not assumed	2.221	14.822	.042

Based on the analysis of the independent samples test hypothesis, it is known that there are differences in the learning outcomes of students who are treated with project-based learning models with low achievement motivation and conventional learning models with low achievement motivation. This condition is evidenced by the independent samples test of the third hypothesis, in the line of equal variances assumed, the price tcount> ttable (df = 16; α = 0.05), namely 2.221 > 1.74588 and Sig. (2-tailed) = 0.041 <0.05 then H0 is rejected. Thus, the hypothesis proposed was tested by the data, so it can be concluded that the short story writing skills of students with low achievement motivation are taught using a project-based learning model higher than those with low achievement motivation are taught using conventional learning models.

Even though students had a low level of achievement motivation in the experimental class, the treatment of the project-based learning model improved the learning outcomes of short story writing skills compared to the control class with low achievement motivation treated with conventional learning models. This result can happen because the project-based learning model is one of the appropriate learning models for learning with specific outputs, for example, short story texts in learning short story writing skills. Maros, et al. (2021) explained that the project-based learning model is a learning model that is very useful for mobilizing students, interpreting exciting and educational content, acquiring new knowledge, and self-development needed for teamwork and problem-solving. Thus, a skill is produced from an activelearning process. Through the conventional learning model, teachers assume that their duties and functions are to transfer knowledge following the rules stated in the curriculum without being equipped with efforts to educate students; in short, the conventional learning model is passive Delisda and Sofyan, 2014). Hence, it is clear that the conventional learning model is not suitable for learning short story writing skills.

Conclusions

Based on the analysis and discussion results, several conclusions can be concluded. First, the value of tcount> ttable (4.859 > 1.66792) and Sig. (2-tailed) = 0.000 <0.05, then H0 is rejected. Therefore, the short story writing skills of students taught using the project-based learning model are higher than those taught with conventional learning models; both prices tcount> ttable (2.447 > 1.74588) and Sig. (2-tailed) = 0.026 <0.05,

then H0 is rejected, so that the short story writing skills of students who have high achievement motivation are taught using a project-based learning model higher than students who have high achievement motivation are taught using conventional learning models; third, the value of tcount> ttable (2.221 > 1.74588) and Sig. (2-tailed) = 0.041 <0.05, then H0 is rejected. It means that the short story writing skills of students who have low achievement motivation are taught using a project-based learning model higher than students who have low achievement motivation are taught using conventional learning models; and fourth, Fo(A*B) = 0.235 with a Sig. = 0.631 > 0.05, then H0 is accepted, so there is no interaction between the project-based learning model and achievement motivation on short story writing skills.

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