Implementation of Multimedia Project-Based Learning Model and Language Attitude towards Writing Skills

Husnil Amalia[1*], Harris Effendi Thahar[2] 🆔

[1,2] Faculty of Language and Arts, Universitas Negeri Padang, Padang, Indonesia

A R T I C L E   I N F O

A B S T R A K

Pelaksanaan pembelajaran keterampilan menulis teks ulasan yang masih berorientasi pada penyelesaian tugas-tugas yang diberikan oleh guru. Hal ini mengakibatkan siswa kesulitan mengembangkan keterampilan menulis teks ulasan. Penelitian ini bertujuan untuk mengkaji pengaruh penerapan model pembelajaran Project-Based Learning berbasis multimedia dan sikap bahasa terhadap keterampilan menulis teks ulasan siswa di kelas VII SMP. Terolong ke dalam jenis penelitian kuantitatif, penelitian ini menerapkan metode eksperimen dengan desain faktorial 2×2. Adapun sampel diambil seluruh populasi, yaitu kelas VII.1 dipilih sebagai kelas eksperimen dan kelas VII.2 dipilih sebagai kelas kontrol dengan jumlah 60 siswa. Berdasarkan hasil analisis dan pembahasan, model pembelajaran Project-based Learning berbasis multimedia terbukti meningkatkan hasil belajar keterampilan menulis teks ulasan siswa dibandingkan dengan model pembelajaran konvensional. Model pembelajaran Project-based Learning berbasis multimedia memberikan landasan untuk merefleksikan kembali metode pengajaran yang efektif. Hasil ini menunjukkan bahwa melibatkan siswa dalam proyek-proyek yang memanfaatkan multimedia dapat merangsang kreativitas siswa dan memperkuat pemahaman konsep menulis. Selain itu, hasil penelitian ini menegaskan bahwa tidak terdapat interaksi antara model pembelajaran Project-based Learning berbasis multimedia dengan sikap bahasa.

A B S T R A C T

The implementation of learning skills in writing review texts is still oriented toward completing the tasks given by the teacher. This results in students needing help developing review text writing skills. This research examines how implementing a multimedia-based Project-Based Learning learning model and language attitudes affects students' review text writing skills in class VII SMP. Classified as a type of quantitative research, this research applies an experimental method with a 2×2 factorial design. The sample was taken from the entire population, namely class VII.1 was chosen as the experimental class, and class VII.2 was chosen as the control class with 60 students. Based on the analysis and discussion results, the multimedia-based project-based learning model is proven to improve learning outcomes for students' review of text writing skills compared to conventional learning models. The multimedia-based project-based learning model provides a basis for reflecting on effective teaching methods. These results indicate that involving students in multimedia projects can stimulate creativity and strengthen their understanding of writing concepts. Apart from that, this study's results confirm no interaction between the multimedia-based Project-based Learning learning model and language attitudes.

1. INTRODUCTION

Teaching and learning is a systematic and continuous process, aiming to develop students' abilities. The development that occurs in students can be in the form of changes in behavior which includes cognitive, affective, and psychomotor aspects (Louk et al., 2020; Nurhayati, 2020; Nurtanto & Sofyan, 2015). Various changes can occur due to the ability of students, the learning model used, and the media that supports the implementation of learning. Of course, this involves innovative learning planning and is in accordance with the development of the education curriculum. Innovative learning is one of the alternatives that can be applied as an effort to improve the quality of education in Indonesia (Mazid et al., 2021; Yao et al., 2022). Through innovative learning, students can develop various potentials in themselves. Learning in the independent curriculum is a process carried out with the aim of developing soft skills and student character

according to the profile of Pancasila students. Learning in the independent curriculum is not just the absorption of information, but a holistic process that is oriented towards the overall development of students. Currently, the Ministry of Education and Culture is paying greater attention to language learning which emphasizes reading comprehension skills and writing skills. Writing skills are one of the indirect communication tools that involve graphological abilities, language structure and vocabulary. In addition, writing does not come directly, but through continuous process and practice. Writing skills are one of the most important skills mastered by students because writing involves activities of reasoning, transformation, communication, and has an important role in language production (Murtadho, 2021; Sarwat et al., 2021). Therefore, focusing on the development of writing skills is a positive step that supports students' comprehensive development in the current educational context, especially review text writing skills.

In reality, the implementation of the learning of review text writing skills is still oriented towards the completion of tasks given by the teacher. As a result, students have difficulty in developing review writing skills. The ability to write review texts is not a skill that can be mastered just by understanding the theory, but students must really understand how to write review texts properly according to the applicable rules (Nuraidah & Hasibuan, 2023; Rozy et al., 2019). In terms of student learning outcomes, the average student is less skilled in writing review texts due to the low mastery of vocabulary, reasoning power and student innovation, so they find it difficult to evaluate the work of others. In addition to the students' problems, it was found that the teacher's role in learning is more dominant, resulting in the loss of opportunities for students to actively participate in learning, and students are less motivated, which affects the learning outcomes of the dominant review text writing skills. Teacher's role as a facilitator must be able to plan learning well, including determining innovative learning models.

To create innovative learning in the independent curriculum, of course, a learning model that is relevant to students is needed. One of the innovative learning models that can be applied is the Project-based Learning model. Project-based learning model is a model rooted in constructivism theory, views learning as a natural process, places students at the center of learning, encourages peer collaboration (Choi et al., 2019; Greenier, 2020; Kokotsaki et al., 2016). Project-based learning model has a high probability to improve students' skills (Koesnandar, 2020; Wan et al., 2022). Project-based learning offers a robust approach to achieving the objectives of the independent curriculum. The Project-based Learning model provides opportunities for students to actively engage in projects that reflect real-world challenges, and allows students to design, implement, and evaluate solutions independently (Chen & Yang, 2019; Maros et al., 2021). Through the application of the Project-based Learning model, teachers can create an innovative learning environment in a meaningful and challenging way. Students are not only listening to information, but also actively involved in the learning process.

Project-based learning model is indispensable in today's education. The teaching and learning process using the project-based learning model significantly affects writing skills (Lu, 2021; Praba' et al., 2018). Project-based learning model has a high probability to train writing skills (Ghamrawi et al., 2017; Wan et al., 2022). Project-based Learning model has a high potential to improve higher order thinking skills, analysis, synthesis, and evaluation. Project-based learning model is considered as an appropriate learning model used to improve writing skills. Many have also developed this learning model with the aim that students gain direct experience through a series of processes that have been passed (Mahendra, 2017; Mayasari et al., 2016; Wang, 2022). In this process, students are often asked to produce reports, papers, or presentations, which require good writing skills. Therefore, the project-based learning model provides opportunities for students to improve their writing skills through practice and in-depth understanding of the project topic they are working on. Thus, the Project-based Learning model is an effective tool in education to develop students' writing skills by providing contextualized and relevant learning experiences.

In order to improve review text writing skills, in addition to the use of innovative learning models, learning media is one of the factors determining the success of learning review text writing skills. Multimedia can increase the effectiveness of learning because multimedia combines audio, visual, and audio-visual elements, making it fun for students (Jumasa & Surjono, 2016; Rasmani et al., 2023). In developing review text writing skills, utilizing multimedia as a learning tool can be a smart choice, because multimedia can provide a more colorful, interesting, and effective learning experience for students. The use of multimedia in learning can create an effective, efficient, student centered learning atmosphere, and provide real learning experiences for students (Havizul, 2020; Juniati et al., 2020; Putri, 2017; Ulfah, 2017). Another factor that can determine the success of learning review text writing skills is the level of students' language attitudes. Explain that language attitudes affect language use, both in everyday life and in the school environment. Language attitude will determine how a student uses language in his writing (Dewantara et al., 2019; Kasmawati & Saputri, 2021). Therefore, it is important for educators to understand

and pay attention to students' language attitudes as an additional factor that has the potential to influence progress in review text writing skills.

The problems that have been described show that the implementation of learning is still oriented towards completing tasks designed by the teacher, especially in the material of writing review texts, the learning model used is not in accordance with the applicable curriculum. This is certainly not effective in improving the learning outcomes of students' review text writing skills. Therefore, a learning model is needed that has high potential to improve higher order thinking skills, analysis, synthesis, and evaluation, so that the teaching and learning process is expected to be more meaningful. Through this research, the author attempts to examine the effect of multimedia-based Project-based Learning model on review text writing skills, both students with high and low language attitudes. In addition, the author tries to interpret the interaction of Project-based Learning model with language attitude.

2. METHOD

This research belongs to the type of quantitative research by applying experimental methods. The experimental design applied in this study is Factorial Design. (Jankovic et al., 2021; Nur Syamsu et al., 2019) explain that the Factorial Design model is a model used if researchers want to identify influences and changes by taking into account the presence of moderator variables. In line with the objectives to be achieved, this research seeks to interpret the effect of the application of multimedia-based Project-based Learning model and language attitude on students' review text writing skills. The sample in this study was obtained through non probability sampling technique as many as 60 students of SMP Negeri 1 Lembah Melintang. The sampling process was carried out deliberately, where researchers selected students who met certain criteria in accordance with the research objectives. In relation, the sample was divided into two groups, namely, 30 students each. Class VII.1 as the experimental class, where the multimedia-based Project-Based Learning learning model was applied, while class VII.2 was used as the control class by applying the conventional learning model. This grouping allowed the researcher to compare the impact of both learning models on students' review text writing skills. By using non-probability sampling technique, this research can provide a representative picture of the effectiveness of the learning models tested on the student population at SMP Negeri 1 Lembah Melintang.

Furthermore, this study used test instruments and questionnaires. The test instrument consists of a performance test to write a review text. The assessment rubric in the performance test has been consulted with language experts and Indonesian language subject teachers. This is done so that the indicators used do not deviate from the students' abilities. The indicators of the review text writing skills instrument in Table 1. Furthermore, the questionnaire in this study was arranged based on the language attitude indicators presented in the Table 2.

Table 1. Indicator of Review Text Writing Skill Instrument

No.	Indicators	Sub Indicators
1.	Structure	a. Orientation b. Content interpretation c. Evaluation d. Summary
2.	Contents	a. The title of the review is interesting and relevant to the content of the text b. The synopsis is in line with the content of the movie c. The interpretation is supported by data d. Polite and well-mannered comments
3.	Characteristics	a. Use of adjectives b. Using words that express aspect details c. Opinions that are supported by facts d. Technical words in the field of movies
4.	Mechanic	a. Spelling b. Punctuation c. Use of capital letters d. Paragraph organization

Table 2. Language Attitude Instrument Indicator

No.	Indicators
1.	An expression of language fidelity
2.	Manifestation of language pride
3.	Awareness of language norms

The questionnaire consists of 25 statements and the validity test has been carried out on the statement items. The validity test is carried out to ensure that each statement accurately measures the variable or concept to be measured. 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 hypothesis testing, the first step that must be taken is data screening or initial action on the data to be processed. This action is called the prerequisite test of analysis as a requirement for hypothesis testing in inferential statistics, it is necessary to test the assumptions of normal distribution and homogeneity. The statistical analysis used for the normality test in this study is the lilliefors test by comparing the L_0 value and the L_{kritis} value ($\alpha = 0.05$ (n = number of samples)), if $L_0 < L_{kritis}$ or asymp. sig. (2-tailed) > 0.05 then H_0 is accepted the sample data comes from a normally distributed population. Furthermore, the data is declared homogeneous if the significance value (p-value) > 0.05 then H_0 is accepted (the variance of two or more data groups is homogeneous).

Hypothesis testing of the effect of multimedia-based Project-based Learning model treatment is proven through independent samples test analysis with the provisions, if $t_{count} \geq t_{table}$ or p-value <0.05 then H_0 is rejected. Thus, the hypothesis proposed is tested by the data, so it can be concluded that there is a significant difference between the learning outcomes of students' review text writing skills taught with multimedia-based Project-based Learning learning model and conventional learning model. Furthermore, the interaction hypothesis testing is carried out with Two-Way Analysis of Variance or ANOVA-2 Jalan with the provisions, if the p-value ≤ 0.05 then H_0 is rejected. This means that there is an interaction between the multimedia-based Project-based Learning learning model and language attitude towards the skill of writing review texts.

3. RESULT AND DISCUSSION

Result

This research involved two different classes, the experimental class was treated with Project-based Learning model and the control class was treated with conventional learning model. The research data in the form of learning outcomes of review text writing skills were obtained from the assessment of review text writing skills worksheets. The assessment indicators were arranged based on the material of review text writing skills consisting of structure, content, characteristics, and mechanics. Furthermore, students were given a questionnaire with the aim of knowing students' language attitudes, and the value of students' language attitudes was used to divide the learning outcomes based on the level of students' language attitudes (high and low). Descriptive statistics of the learning outcomes of review text writing skills of the two classes are presented in the Table 3.

Table 3. Descriptive Statistics of Learning Outcomes of Review Text Writing Skills

Statistics		A1	A2	A1B1	A1B2	A2B1	A2B2
N	Valid	30	30	15	15	15	15
	Missing	0	0	0	0	0	0
Mean		77.33	65.83	78.00	76.67	68.00	63.67
Median		77.50	65.00	80.00	75.00	70.00	65.00
Std. Deviation		11.427	12.463	7.512	14.598	13.470	11.412
Variance		130.575	155.316	56.429	213.095	181.429	130.238
Range		40	50	25	40	50	40
Minimum		55	40	65	55	40	40
Maximum		95	90	90	95	90	80

Based on the table above, several conclusions can be drawn, first, in the experimental class (A1) the highest review text writing skill score is 95, the lowest is 55 with an average score of 77.33 and a standard deviation of 11.427; second, in the control class (A2) the highest review text writing skill score is 90, the lowest is 40 with an average score of 65.83 and a standard deviation of 2.275; third, in the experimental class with high language attitude (A1B1) the highest review text writing skill score is 90, the lowest is 65

with an average score of 78 and a standard deviation of 7.512; fourth, in the experimental class with low language attitude (A1B2) the highest review text writing skill score was 95, the lowest was 55 with a mean score of 76.67 and a standard deviation of 14.598; fifth, in the control class with high language attitude (A2B1) the highest review text writing skill score was 90, the lowest was 40 with a mean score of 68 and a standard deviation of 13.470; and sixth, in the control class with low language attitude (A2B2) the highest review text writing skill score was 80, the lowest was 40 with a mean score of 63.67 and a standard deviation of 11.412.

The normality test in this study used the Lilliefors test and was analyzed through the SPSS Statistics application. The data analyzed, namely first, the learning outcomes of review text writing skills in experimental and control classes; second, the learning outcomes of review text writing skills in experimental classes with high and low language attitudes; and third, the learning outcomes of review text writing skills in control classes with high and low language attitudes. The results of the Lilliefors analysis are presented in the Table 4.

Table 4. Results of the Lilliefors Normality test

	A1	**A2**	**A1B1**	**A1B2**	**A2B1**	**A2B2**	**A*B**
Statistic	0.116	0.153	0.138	0.183	0.143	0.213	0.095
df	30	30	15	15	15	15	60
Sig.	0.200	0.070	0.200	0.191	0.200	0.065	0.200

Based on the table above, several conclusions can be drawn, first, the experimental class was treated with a multimedia-based Project-based Learning learning model (A1) obtained a Sig value. 0.200 > 0.05 then H_0 is accepted; second, the control class is treated with a conventional learning model (A2) obtaining a Sig value. 0.070 > 0.05 then H_0 is accepted; third, the experimental class was treated with a multimedia-based Project-based Learning learning model with a high language attitude (A1B1) obtained a Sig. 0.200 > 0.05 then H_0 is accepted; fourth, the experimental class was treated with a multimedia-based Project-based Learning model with a low language attitude (A1B2) obtained a Sig. 0.191 > 0.05 then H_0 is accepted; fifth, the control class is treated with a conventional learning model with a high language attitude (A2B1) obtaining a Sig value. 0.200 > 0.05 then H_0 is accepted; sixth, the control class was treated with conventional learning model with low language attitude (A2B2) obtained Sig. 0.065 > 0.05 then H_0 is accepted; and sixth, the experimental class and control class that have high and low language attitudes (A*B) obtained a Sig. 0.200 > 0.05 then H_0 is accepted. Thus, all research data come from a normally distributed population.

The homogeneity test aims to determine whether the data has a homogeneous variant or vice versa. The homogeneity test in this study was analyzed using the SPSS Statistics application. The data tested for homogeneity, namely first, the learning outcomes of review text writing skills in experimental and control classes; second, the learning outcomes of review text writing skills with high language attitudes in experimental and control classes; and third, the learning outcomes of review text writing skills with low language attitudes in experimental and control classes. Results of Homogeneity Test Levene's Test of Equality of Error Variances in Table 5.

Table 5. Results of Homogeneity Test Levene's Test of Equality of Error Variances

	Levene Statistic	**df1**	**df2**	**Sig.**
Learning Outcome Score	0.001	1	58	0.977
Learning Outcome Score with High Language Attitude	2.742	1	28	0.109
Learning Outcome Score with Low Language Attitude	2.376	1	28	0.134
Learning Outcomes with High and Low Language Attitude	2.264	3	56	0.091

Based on the table above, several conclusions can be drawn, first, the value of learning outcomes of review text writing skills of experimental and control classes obtained Sig. 0.977 > 0.05 then H_0 is accepted; second, the learning outcomes of review text writing skills of experimental and control classes with high language attitude obtained Sig. 0.109 > 0.05 then H_0 is accepted; third, the learning outcomes of review text writing skills of experimental and control classes with low language attitude obtained Sig. 0.134 > 0.05 then H_0 is accepted; and fourth, the learning outcomes of review text writing skills of experimental and control classes with high and low language attitudes obtained Sig. 0.091 > 0.05 then H_0 is accepted. Thus, all research data have homogeneous variance. The alternative hypothesis proposed in this study needs to be proven through empirical and measurable data, so that the hypothesis test in this study is carried out as an effort to answer the formulation of the problem that has been set. The hypothesis test used in this study is

the independent sample test and is analyzed through the SPSS Statistics application. The results of the independent sample test analysis are presented in the Table 6.

Table 6. Independent Samples Test Results

	t	df	Sig. (2-tailed)
Equal variances assumed Hypothesis 1	3.725	58	0.000
Equal variances assumed Hypothesis 2	2.511	28	0.018
Equal variances assumed Hypothesis 3	2.717	28	0.011

Based on the results of the independent sample test analysis above, the following conclusions can be drawn. 1) In the equal variances assumed hypothesis 1 line, it is known that $t_{count} > t_{table}$ (df = 58; α = 0.05), namely 3.725> 1.67155 and Sig. (2-tailed) = 0.000 < 0.05 then H_0 is rejected and H_a is accepted. Thus the alternative hypothesis is tested by the data, so it can be concluded that the review text writing skills of students taught using the multimedia-based Project-based Learning model are higher than those of students taught using the conventional learning model. 2) In the equal variances assumed hypothesis 2 line, it is known that $t_{count} > t_{table}$ (df = 28; α = 0.05), namely 2.511> 1.70113 and Sig. (2-tailed) = 0.018 < 0.05 then H_0 is rejected and H_a is accepted. Thus the alternative hypothesis is tested by the data, so it can be concluded that the review text writing skills of students who have a high language attitude taught using a multimedia-based Project-based Learning model are higher than those of students who have a high language attitude taught using a conventional learning model. 3) In the equal variances assumed hypothesis 3 line, it is known that $t_{count} > t_{table}$ (df = 28; α = 0.05), namely 2.717> 1.70113 and Sig. (2-tailed) = 0.011 < 0.05 then H_0 is rejected and H_a is accepted. Thus the alternative hypothesis is tested by the data, so it can be concluded that the review text writing skills of students who have low language attitude taught using multimedia-based Project-based Learning model is higher than students who have low language attitude taught using conventional learning model.

Furthermore, interaction analysis in this study used tests of between-subjects effects and analyzed through SPSS Statistics application. Based on the results of the analysis of tests of between-subjects effects above, the value of $Fo_{(A*B)}$ = 0.232 and the value of Sig. = 0.632 > 0.05 then H_0 is accepted. Thus, the hypothesis proposed is not tested by the data, so it can be concluded that there is no interaction between multimedia-based Project-based Learning learning model and language attitude on the skill of writing review text.

Discussion

Project-based learning model is an effective project-based learning model, reflecting problems or challenges found by students in real life. This model involves students actively in learning, provides memorable learning experiences, and helps student development that is necessary for the future of students. The development can include cognitive, affective, and psychomotor aspects (Louk et al., 2020; Nurhayati, 2020; Nurtanto & Sofyan, 2015). Project-based Learning model provides a positive learning experience so that student learning outcomes are better. A study conducted by showed that the implementation of multimedia-based Project-based Learning model can improve students' writing skills. The finding was proven by the improvement of learning outcomes in each cycle conducted (Aji et al., 2018; Hidayati & Nurjanah, 2017). Through the application of the multimedia-based Project-based Learning learning model, obtained $t_{count} > t_{table}$ (df = 58; α = 0.05), namely 3.725 > 1.67155 and Sig. (2-tailed) = 0.000 < 0.05 then H_0 is rejected and Ha is accepted. The results of this analysis show that the application of multimedia-based Project-based Learning model is able to improve the learning outcomes of students' review text writing skills. Project-based Learning learning model can increase student creativity. The Project-based Learning model allows students to engage in projects or tasks that demand creative thinking, initiative taking, and idea exploration. The implementation of learning that utilizes the multimedia-based Project-based Learning learning model can improve exploration, assessment, interpretation, and synthesis skills (Soleh, 2021; Suhariyanti, 2021). Through this approach, students can develop thinking skills, integrate various knowledge, and apply their writing skills in a more real and meaningful context.

The Project-based Learning model provides space for students to design, plan and produce more creative review papers. It is not just about mechanically presenting information, but also about sharing views, personal reflection and deeper thinking. Students who are taught using the Project-based Learning model have a good learning focus, besides that students are always active both in learning and project work. Project-based Learning learning model was proven to improve the learning outcomes of students' writing skills. In addition, the Project-based Learning learning model is able to improve cooperation skills among students and foster self-confidence such as actively asking questions and arguing against a view (Nurachmana et al., 2021; Susana & Efendi, 2020).

Multimedia-based project-based learning model is a revolutionary approach in education. Project-based learning model has a high probability to train students' writing skills. In learning review text skills, multimedia-based Project-based Learning model provides opportunities for students to develop their analytical and critical skills. Project-based Learning has high potential to improve higher order thinking skills, analysis, synthesis, and evaluation. In the multimedia-based Project-based Learning model, students are given a project related to a particular review text (Mayasari et al., 2016; Wan et al., 2022). By using various types of media such as text, images, audio, and video, students can explore the review text more deeply. Students not only read the text, but also analyze it visually and audibly, thus allowing students to understand the context and nuances that are difficult to achieve by reading alone.

In addition, the multimedia-based Project-based Learning model also makes learning more interesting and diverse. One of the most effective ways to develop learners' creativity is by applying the Project-based Learning model through real-world problem exploration activities (Anazifa & Djukri, 2017; Mahendra, 2017). Students not only read and write, but also create interesting multimedia content, which can increase their motivation and interest in learning. Project-based learning model is based on constructivist and constructionist theories, which is activity-oriented learning that builds knowledge based on students' experiences and prior knowledge and mediated by students' interaction with a project. It also allows teachers to evaluate students' understanding in a more holistic way, as they can see how students apply their knowledge to a multimedia context.

In addition to the effective application of multimedia, researchers prove the effectiveness of the application of multimedia-based Project-based Learning learning models through the level of students' language attitudes. The results of the analysis of the learning outcomes of review text writing skills of students with high language attitudes in this study led to a significant understanding of the effect of multimedia-based Project-based Learning models on the learning outcomes of review text writing skills of students in class VII of SMP Negeri 1 Lembah Melintang who have high language attitudes. Testing independent samples test, shows that $t_{count} > t_{table}$ (df = 28; α = 0.05), namely 2.511 > 1.70113 and Sig. (2-tailed) = 0.018 < 0.05 then H_0 is rejected and H_a is accepted. Thus, the alternative hypothesis is tested by the data, so it can be concluded that the review text writing skills of students who have high language attitude taught using multimedia-based Project-based Learning model are higher than those of students who have high language attitude taught using conventional learning model.

Students who have high language attitude taught with Project-based Learning model have better review text writing skill compared to students who have high language attitude taught with conventional learning model. This shows that students who are taught with Project-based Learning model are more active than students who are taught with conventional learning model. Project-based Learning model is able to increase student activeness during learning. Active teaching and learning activities provide great opportunities for students to express their talents and creativity. Project-based Learning model allows students to explore their abilities to the fullest (Noprina, 2019; Ummah et al., 2019). People who have a positive attitude are characterized by a willingness to maintain their language independence, a willingness to make language a symbol of identity, and a willingness to use language carefully. This independent nature is needed in review text writing skills. Through the Project-based Learning model, students can develop an independent nature in review text writing skills. Project-based learning model provides opportunities for students to play an active role in managing their own projects, including in the process of creating review texts. Project-based Learning learning model centers learning on students (stundent centred learning), so that students can practice independence in learning (Duan et al., 2020; Hadiansah et al., 2021). In addition, the results of the analysis of the learning outcomes of review text writing skills of students with low language attitudes carry a similar understanding that the multimedia-based Project-based Learning model has a significant effect on the learning outcomes of review text writing skills of students in class VII of SMP Negeri 1 Lembah Melintang who have low language attitudes. Independent samples test, showed that $t_{count} > t_{table}$ (df = 28; α = 0.05), namely 2.717 > 1.70113 and Sig. (2-tailed) = 0.011 < 0.05 then H_0 is rejected and H_a is accepted. Thus, the alternative hypothesis is tested by the data, so it can be concluded that the review text writing skills of students who have low language attitude taught using multimedia-based Project-based Learning model are higher than those of students who have low language attitude taught using conventional learning model.

Although students have low language attitude in the experimental class, by applying multimedia-based Project-based Learning model can improve students' review text writing skills compared to students with low language attitude treated with conventional learning model. This happens because the Project-based Learning model is one of the learning models that is suitable for learning with certain outputs, such as review texts. Project-based Learning model is a very useful learning model for student mobilization, interesting educational interpretation of content, efforts to gain new knowledge, and self-development needed for teamwork and problem solving (Abidin et al., 2020; Maros et al., 2021).

A skill results from an active learning process rather than a passive one. As a skill, writing is a creative activity in conveying experiences, events, knowledge, knowledge, and human thoughts. Through conventional learning models, teachers assume that their duties and functions are to transfer knowledge in accordance with the rules stated in the curriculum without being complemented by efforts to educate students, in short, conventional learning models are passive learning models (Deliany et al., 2019; Nadhifah, 2018). Referring to the results of the interaction hypothesis analysis, it is known that there is no interaction between the multimedia-based Project-based Learning learning model and language attitude on the skills of writing review texts. The improvement of students' review text writing skills is fully influenced by the application of the Project-based Learning model. It is proven by testing of between-subjects effects that there is a difference in the average learning outcomes of students' review text writing skills treated with multimedia-based Project-based Learning learning model and conventional learning model. Furthermore, there is no difference in the average review text writing skills of students with high language attitudes and students with low language attitudes. There are other factors that may determine the success of learning to write student review texts, such as curriculum, methods, learning models, facilities and infrastructure, environment, creativity, and the talents and interests of students. Lesson planning with the right strategy, approach, and media tailored to the conditions of students is one of the effective ways to improve students' understanding and writing skills. Students' physical condition is one of the factors that affect students' writing skills. All these factors are interrelated and interact in shaping students' learning outcomes in writing review texts (Azmussya'ni & Wangid, 2014; Sari et al., 2020). Therefore, to achieve optimal results, it is necessary to consider and integrate these factors in lesson planning and implementation of appropriate learning models.

Thus, the results of analysis and interpretation in this study indicate that the use of multimedia-based Project-based Learning model has a significant impact on the learning outcomes of students' review text writing skills, both students with high language attitudes and students with low language attitudes in class VII of SMP Negeri 1 Lembah Melintang. This finding underlies the importance of an active learning model that focuses on student engagement, such as the Project-based Learning model in improving review text writing skills. Conventional learning models, which tend to be passive in knowledge transfer, can hinder students' development in improving review text writing skills. Furthermore, this study provides an understanding that there is no significant interaction between multimedia-based Project-based Learning model and language attitude on students' review text writing skills. This result confirms that the improvement of students' review text writing skills is fully influenced by the implementation of multimedia-based Project-based Learning model, without considering students' language attitude.

Based on the results of this study, it can be concluded that the multimedia-based Project-based Learning model has a significant positive impact on the learning outcomes of students' review text writing skills in class VII of SMP Negeri 1 Lembah Melintang. This finding illustrates that the project-based active learning approach not only provides a memorable learning experience, but also contributes greatly to students' holistic development. Students' involvement in multimedia-based projects not only improves their cognitive abilities, but also enriches affective and psychomotor aspects. The implementation of multimedia-based project-based learning model is proven to increase students' creativity in writing, provide space for personal expression, and build analytical and critical skills in composing review texts. With a focus on student-centered learning, this model allows students to actively engage in project management, create multimedia content, and hone their independence in learning.

In addition, this study shows that the multimedia-based Project-based Learning model provides consistent results for both students with high language attitudes and students with low language attitudes. This indicates that this learning model can be widely adopted regardless of students' initial language ability level. Thus, this learning model can be considered as an inclusive and effective approach in improving students' review text writing skills across different language ability levels. As a further step, recommendations can be made to further integrate the multimedia-based Project-based Learning model in the curriculum, taking into account the potential for developing students' higher-order thinking skills, collaboration and independence. The development of educational policies that support the implementation of this learning model can also make a positive contribution to the quality of learning at the school level. In conclusion, the results of this study can serve as a basis to support the development of innovative and relevant learning strategies in the modern educational context.

4. CONCLUSION

Based on the results of the analysis and discussion, the multimedia-based Project-based Learning model has been proven to significantly improve the learning outcomes of students' review text writing skills compared to the conventional learning model. The multimedia-based Project-based Learning model is an

effective learning model and can be widely applied in improving students' review text writing skills at various levels of students' language attitudes. In addition, the results of this study confirm that there is no interaction between the multimedia-based Project-based Learning learning model and language attitude. The significance of this finding sets the stage for further exploring and developing learning methods that integrate technology and projects in the context of teaching writing.

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