Effectiveness of Problem-Based Learning and Project-Based Learning with Interactive Media in News Writing Based on Writing Motivation

Rizqia Eka Eryana*, Herman Budiyono, Ida Zulaeha, Deby Luriawati Naryatmojo, Rahayu Pristiwati

Universitas Negeri Semarang, Sekaran St., Semarang, Central Java, 50229, Indonesia
*Corresponding author, email: rizqiaekaeryana00@students.unnes.ac.id

https://doi.org/10.17977/um065.v6.i9.2026.7

Article history
Submitted: 31 May 2026
Revised: 5 June 2026
Accepted: 9 June 2026
Published: 12 June 2026

Keywords
Interactive media
Motivation to write
News articles
Problem-based learning
Project-based learning

Abstract
This study aims to analyze differences in the effectiveness of Problem-Based Learning (PBL) and Project-Based Learning (PjBL) models supported by the web-based interactive medium RedaksiKita in news text writing instruction based on seventh-grade students' writing motivation. This study employed a quantitative approach with a 2 × 3 factorial quasi-experimental design. The participants consisted of 60 students, including 28 students in the PBL class and 32 students in the PjBL class. Data were collected through news writing tests administered as pretests and posttests and through a writing motivation questionnaire that classified students into high, moderate, and low motivation groups. Data were analyzed using normality tests, homogeneity tests, paired-sample t-tests, independent-samples t-tests, and two-way ANOVA. The results showed that both models significantly improved students' news writing skills. In the PBL class, the mean score increased from 59.68 to 88.43, with an improvement of 28.75 points. In the PjBL class, the mean score increased from 58.38 to 86.19, with an improvement of 27.81 points. The independent-samples t-test showed a significant difference in final writing performance between the two classes (Sig. = 0.040). The two-way ANOVA revealed that the learning model, writing motivation, and their interaction significantly affected students' final performance. Thus, both models supported by RedaksiKita are effective for teaching news writing, but PBL produced higher final achievement. The findings indicate that instructional model selection should consider students' writing motivation, learning objectives, time allocation, and classroom management needs.

1. Introduction

Writing skills are one of the language competencies that play a crucial role in Indonesian language learning at the secondary school level. Compared with listening, speaking, and reading, writing requires a more complex cognitive process because students must generate ideas, organize information, choose appropriate vocabulary, construct text structure, and revise their work continuously. Graham, Kiuhara, and MacKay (2020) emphasize that effective writing instruction must focus on planning, idea development, text composition, and revision. In line with this, Nurgiyantoro (2018) explains that the assessment of writing skills must consider content, organization, vocabulary, language use, and writing mechanics so that students' achievements can be evaluated more objectively. In Indonesian language learning, this complexity is particularly evident in news writing assignments because students must present facts accurately, coherently, and responsibly.

Writing news articles has characteristics that differ from other text types because they require complete information, precise structure, objectivity, timeliness, and straightforward journalistic language. Students must identify the essential news elements of what, who, when, where, why, and how and develop them into a complete news article. In practice, this skill is not easily mastered by junior high school students. Many students can recount events orally but struggle when transforming their experiences into news texts that meet the requirements of content completeness, structure, and linguistic conventions. Budiyono, Suroso, and Priyanto (2024) emphasize that barriers to learning to write are often caused not only by a lack of ideas but also by weak learning strategies in bridging students' experiences with the structure of academic writing. Similar findings were reported by Andani and Anggraini (2023), who noted that junior high school students' news writing skills still face challenges in the completeness of information, text structure, and language accuracy. This phenomenon was also observed in a junior high school context where students had access to social, school, and environmental events as authentic sources for news writing, but still struggled to transform real-life events into systematic news articles. This situation suggests that news writing instruction requires strategies that not only explain concepts but also guide students through observation, data collection, information organization, drafting, and revision.

ISSN: 2797-3174

Teaching students to write news articles cannot be limited to explaining concepts and assigning writing tasks directly. Students need learning experiences that allow them to observe events, gather data, sort facts, outline their work, write drafts, and revise their writing step by step. Therefore, active, contextual, and constructivist learning models are needed. Two models relevant to these needs are Problem-Based Learning (PBL) and Project-Based Learning (PjBL). Both models position students as active agents in constructing knowledge, but they differ in their learning emphasis. The PBL model emphasizes learning through authentic problem-solving. In this model, students are presented with real-world problems that must be analyzed and investigated through critical thinking. Arends (2012) explains that PBL provides students with opportunities to develop higher-order thinking skills through investigative activities focused on problems relevant to their lives. Savery (2006) also asserts that PBL is oriented toward open-ended problems that encourage students to seek information, evaluate evidence, and devise solutions. In news writing instruction, PBL helps students understand that news is not built from imagination alone, but from the process of discovering, verifying, and organizing facts.

Meanwhile, the PjBL model emphasizes learning through the creation of products. PjBL gives students opportunities to design, work on, revise, and present their work within a specific learning period. Guo, Saab, Post, and Admiraal (2020) state that PjBL can increase student engagement because learning is focused on completing meaningful projects. In news writing instruction, the final product is a news article developed through data collection, structuring, content development, and editing. Astuti, Arono, and Ariesta (2025) also indicate that PjBL supports news writing skills because students are guided to produce written work through a structured learning process. The implementation of active learning models will be more effective when supported by media that suit students' characteristics. Today's junior high school students are familiar with digital technology; therefore, writing instruction needs to be delivered through visual, interactive, and accessible media. Web-based interactive media is a relevant alternative because it can present materials, stimuli, exercises, educational games, and writing activities in a single learning space. Mayer (2021), through the Cognitive Theory of Multimedia Learning, asserts that learning becomes more effective when information is presented through mutually supportive verbal, visual, and activity-based elements. Wulandari, Murniviyanti, and Armariena (2024) also demonstrate that digital media can help junior high school students improve news writing skills.

Based on these needs, this study uses RedaksiKita, a web-based interactive platform designed to support news writing instruction. RedaksiKita simulates a simple newsroom by providing news text materials, event prompts, exercises for identifying the essential news elements of what, who, when, where, why, and how, games for structuring news stories, and a writing practice menu. This medium does not merely deliver content but also functions as scaffolding that guides students from understanding concepts to producing news texts. Thus, RedaksiKita is expected to reduce cognitive barriers to writing and make learning more contextual, interactive, and focused. In addition to instructional models and media, internal factors related to students must also be considered. One factor that plays a role in writing success is writing motivation. Motivation relates to students' readiness to engage in the writing process, persevere when facing difficulties, and revise their writing. Ryan and Deci (2020), through Self-Determination Theory, explain that motivation is closely linked to engagement, autonomy, and perseverance in learning. Students with high motivation are generally better prepared to handle complex writing tasks, whereas students with moderate and low motivation require stronger stimuli, guidance, and learning support. Nur'aini, Sumarwati, Suryanto, and Suwandi (2024) demonstrate that learning motivation is related to students' news writing skills.

Previous studies have examined PBL, PjBL, digital media, and motivation in writing instruction. However, most of these studies have investigated each element separately. PBL has often been examined in relation to problem-solving, critical thinking, and evidence-based writing, whereas PjBL has commonly been associated with student engagement and the production of written products. Studies on digital media have mostly focused on the role of technology in supporting writing instruction, while studies on motivation have generally examined its relationship with learning outcomes. Therefore, there remains a limited number of studies that directly compare PBL and PjBL in news writing instruction while simultaneously involving web-based interactive media and students' writing motivation.

The research gap addressed in this study is not merely the limited comparison between PBL and PjBL in writing instruction, but the lack of empirical evidence on how these two models operate when combined with web-based interactive media and differentiated by students' writing motivation levels. Previous studies generally examined PBL, PjBL, digital media, or motivation separately. Therefore, this study applies a 2 × 3 factorial quasi-experimental design by comparing two learning models, namely PBL and PjBL, across three levels of writing motivation: high, moderate, and low. This design enables the study to examine not only whether one learning model is more effective than the other, but also whether writing motivation and the interaction between learning model and writing motivation contribute to students' final news writing performance. Based on this research gap, this study aims to analyze differences in the effectiveness of PBL and PjBL models supported by RedaksiKita web-based interactive media in news writing instruction based on students' writing motivation. The results are expected to provide theoretical and practical contributions to the development of adaptive, contextual, and technology-assisted Indonesian language instruction at the junior high school level.

ISSN: 2797-3174

2. Method

This study employed a quantitative approach using a quasi-experimental design. A quantitative approach was chosen because the study aimed to test the effectiveness of learning models based on numerical data in the form of students' news writing scores. The quasi-experimental design was used because the research was conducted in naturally formed school classes, so the researcher did not fully randomize the participants as in a true experimental design (Creswell & Creswell, 2018; Sugiyono, 2023).

The research design used in this study was a 2 × 3 factorial design. The first factor was the learning model, consisting of PBL and PjBL. The second factor was writing motivation, consisting of high, moderate, and low categories. The dependent variable was students' news writing skills. This design was used to examine the effectiveness of each learning model, the role of writing motivation, and the interaction between learning model and writing motivation in students' final news writing performance.

The participants were 60 seventh-grade students from two public junior high schools in Central Java, Indonesia. Experimental Class 1 consisted of 28 students who received instruction using the PBL model supported by RedaksiKita. Experimental Class 2 consisted of 32 students who received instruction using the PjBL model supported by RedaksiKita. The students were generally 12 to 13 years old, corresponding to the typical age range of seventh-grade students in Indonesian junior high schools. Both male and female students were involved in the study. The two classes were selected because they had similar learning characteristics, followed the same curriculum, and were available for the implementation of the experimental treatment.

The medium used in this study was RedaksiKita, a web-based interactive platform designed to support news writing instruction. This platform contains news text materials, event prompts, exercises for identifying the essential news elements of what, who, when, where, why, and how, games for structuring news stories, and a writing practice area. In the PBL class, RedaksiKita supported students in observing problems, identifying facts, organizing information, and composing news texts based on data. In the PjBL class, RedaksiKita supported students in designing, developing, revising, and refining news text products. The use of this web-based interactive medium is in line with multimedia learning principles that emphasize the combination of verbal, visual, and interactive elements to support students' understanding of complex materials (Mayer, 2021).

The instruments used in this study consisted of a news writing skills test and a writing motivation questionnaire. The news writing skills test was administered as a pretest and a posttest. The pretest was used to measure students' initial ability in writing news texts before treatment, while the posttest was used to measure students' final ability after treatment. Students' news writing skills were assessed using an analytic scoring rubric covering five aspects: title appropriateness, completeness of the essential news elements of what, who, when, where, why, and how, news text structure, language use, and writing mechanics. The use of an analytic rubric was intended to make the assessment of writing skills more objective, measurable, and accountable (Nurgiyantoro, 2018; Graham et al., 2020).

The writing motivation questionnaire was used to classify students into high, moderate, and low writing motivation categories before treatment. In Experimental Class 1, there were 4 students with high writing motivation, 19 with moderate writing motivation, and 5 with low writing motivation. In Experimental Class 2, there were 5 students with high writing motivation, 22 with moderate writing motivation, and 5 with low writing motivation. These categories were used to examine trends in students' learning outcomes based on motivation levels and to analyze the interaction between learning model and writing motivation.

The validity of the instruments was established through expert judgment by examining the alignment between the news writing test, analytic scoring rubric, writing motivation questionnaire, learning objectives, and research indicators. The writing test was assessed using an analytic rubric covering title appropriateness, completeness of the essential news elements of what, who, when, where, why, and how, news text structure, language use, and writing mechanics. The reliability of the writing motivation questionnaire was tested using Cronbach's Alpha with the assistance of SPSS. The reliability analysis involved 60 valid responses and 40 questionnaire items. The result showed a Cronbach's Alpha value of 0.734, indicating that the writing motivation questionnaire had acceptable internal consistency and was reliable for classifying students into high, moderate, and low motivation groups.

The research procedure was conducted in five stages. The first stage was research preparation, including developing teaching materials, designing the news writing test, preparing the writing motivation questionnaire, and setting up the RedaksiKita platform. The second stage was administering the writing motivation questionnaire to identify students' motivation categories. The third stage was administering the pretest. The fourth stage was implementing instructional treatment in each experimental class. Experimental Class 1 received instruction using PBL, while Experimental Class 2 received instruction using PjBL. Both classes used RedaksiKita as a learning support medium. The fifth stage was administering the posttest to assess students' final ability in writing news texts.

ISSN: 2797-3174

Data analysis was conducted using descriptive and inferential statistics. Descriptive analysis was used to determine mean pretest and posttest scores and improvements in each experimental class. Inferential analysis began with normality and homogeneity tests. After the prerequisite tests were fulfilled, paired-sample t-tests were used to determine the effectiveness of each learning model based on the difference between pretest and posttest scores. An independent-samples t-test was used as a supporting analysis to examine the difference in final performance between the PBL and PjBL classes. The main analysis was two-way ANOVA, which was used to determine the effects of the learning model, writing motivation, and their interaction on students' final news writing performance. The significance level was 0.05. If the significance value was less than 0.05, the result was considered significant; conversely, if it was greater than 0.05, the result was considered not significant (Field, 2018; Pallant, 2020).

3. Results and Discussion

The results of this study are presented to address the research objective, which is to analyze differences in the effectiveness of the PBL and PjBL models supported by the web-based interactive medium RedaksiKita in news writing instruction based on students' writing motivation. The analysis was conducted using descriptive statistics, prerequisite tests, paired-sample t-tests, independent-sample t-tests, and two-way ANOVA. Descriptive statistics were used to examine increases in pretest and posttest scores in each experimental class. The paired-sample t-test was used to determine the effectiveness of each learning model, the independent-samples t-test was used to compare final performance between the two experimental classes, and the two-way ANOVA was used to determine the effects of learning model, writing motivation, and their interaction on final news writing ability.

Table 1. Descriptive Statistics of Pretest and Posttest Scores for News Writing Skills

Learning Model	N	Pretest	Posttest	Improvement
Problem-Based Learning	28	59.68	88.43	28.75
Project-Based Learning	32	58.38	86.19	27.81

Based on Table 1, the average pretest score in the PBL class was 59.68 and increased to 88.43 on the posttest. Thus, there was an average increase of 28.75 points. In the PjBL class, the average pretest score was 58.38 and increased to 86.19 on the posttest, with an average increase of 27.81 points. These data indicate that both learning models contributed to an improvement in students' news writing skills, which was later confirmed by the paired-sample t-test results. Descriptively, the PBL class achieved a higher posttest score and slightly greater improvement than the PjBL class.

Figure 1 shows that both experimental classes experienced an increase in mean scores after the instructional treatment. The PBL class increased from 59.68 to 88.43, while the PjBL class increased from 58.38 to 86.19. This indicates that both models supported by RedaksiKita improved students' news writing skills, although the PBL class obtained a higher final mean score.

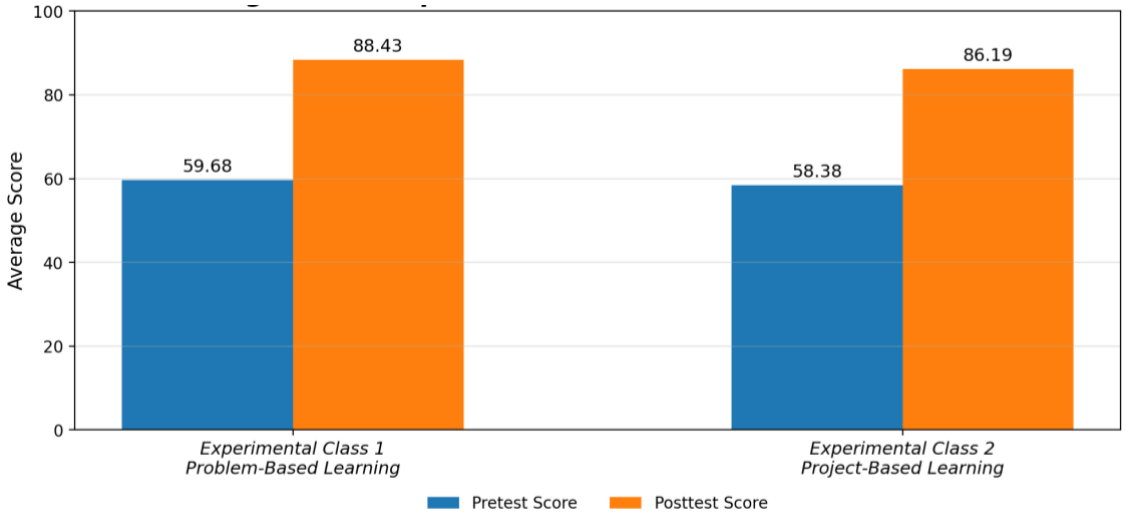

Figure 1. Comparison of Pretest and Posttest Scores in PBL and PjBL Classes

The improvement in both experimental classes indicates that learning to write news articles supported by RedaksiKita helped students develop their writing skills in a more focused manner. RedaksiKita provides event stimuli, materials, exercises for identifying the essential news elements of what, who, when, where, why, and how, games for structuring news articles, and a writing practice space. These components help students

ISSN: 2797-3174

understand news not only as conceptual material but also as a process of transforming facts into systematic information. This aligns with the Cognitive Theory of Multimedia Learning, which emphasizes that students understand information more easily when material is presented through verbal, visual, and mutually supportive learning activities (Mayer, 2021). This finding also supports Graham et al. (2020), who argue that writing instruction requires clear process support from planning and idea development to drafting and revision.

These findings are consistent with the research by Fiddin (2025), Qadryanti (2023), and Muarifah (2024), which shows that PBL can help students develop writing skills through problem-solving activities, idea organization, and strengthened thinking processes. In the context of this study, PBL helped students write news texts because the problems presented were close to their experiences, making the information developed in the writing more concrete.

To determine the effectiveness of each learning model inferentially, paired-sample t-tests were conducted on the PBL and PjBL classes. The test results are presented in Table 2.

Table 2. Results of the Paired-Sample t-Test for the PBL and PjBL Classes

Learning Model	Mean Difference	t	df	Sig. (2-tailed)	Notes
Problem-Based Learning	-28.750	-20.281	27	0.000	Significant
Project-Based Learning	-27.812	-20.596	31	0.000	Significant

Based on Table 2, the paired-sample t-test in the PBL class showed a significant difference between pretest and posttest scores. The Sig. (2-tailed) value of 0.000 < 0.05 indicates that PBL assisted by RedaksiKita was effective in improving students' news writing skills. Similar results were found in the PjBL class. The Sig. (2-tailed) value of 0.000 < 0.05 indicates that PjBL supported by RedaksiKita was also effective in improving students' news writing skills.

The effectiveness of PBL can be explained by its use of authentic problems as the starting point for learning. Students were trained to observe events, identify problems, gather information, sort facts, and compose news articles based on data. This process helped students understand that news texts are not composed of opinions alone, but of facts processed objectively. This finding aligns with Arends (2012) and Savery (2006), who state that PBL encourages students to develop critical thinking skills through real-world problem solving. In news writing, the problem-investigation process helps students identify the essential news elements of what, who, when, where, why, and how more concretely before composing the text.

The effectiveness of PjBL can be explained through its product-oriented learning process. In PjBL, students were given opportunities to plan, draft, revise, and refine news articles as final learning products. This activity allowed students to experience the writing process step by step. Guo et al. (2020) explain that PjBL can increase student engagement because learning is directed toward completing meaningful projects. This aligns with Astuti et al. (2025), Paris (2024), Suteja (2022), and Winarni (2023), who demonstrated that PjBL supports writing skills by giving students opportunities to design, write, revise, and present their written work.

In addition to observing improvements in each model, this study analyzed students' final abilities based on writing motivation levels. The average posttest scores by writing motivation category are presented in Table 3.

Table 3. Average Posttest Scores by Writing Motivation

Learning Model	Low Motivation	Moderate Motivation	High Motivation	Total Average
Problem-Based Learning	82.00	88.32	97.00	88.43
Project-Based Learning	84.40	86.36	87.20	86.19
Total	83.20	87.27	91.56	87.23

Based on Table 3, students with high writing motivation achieved an average final score of 91.56, which was higher than that of students with moderate motivation (87.27) and low motivation (83.20). Descriptively, there is a trend indicating that higher writing motivation is followed by higher final achievement. In the PBL class, the highest average score was found in the high motivation group, at 97.00. In the PjBL class, the final scores across motivation groups were relatively closer, with high motivation at 87.20, moderate motivation at 86.36, and low motivation at 84.40.

ISSN: 2797-3174

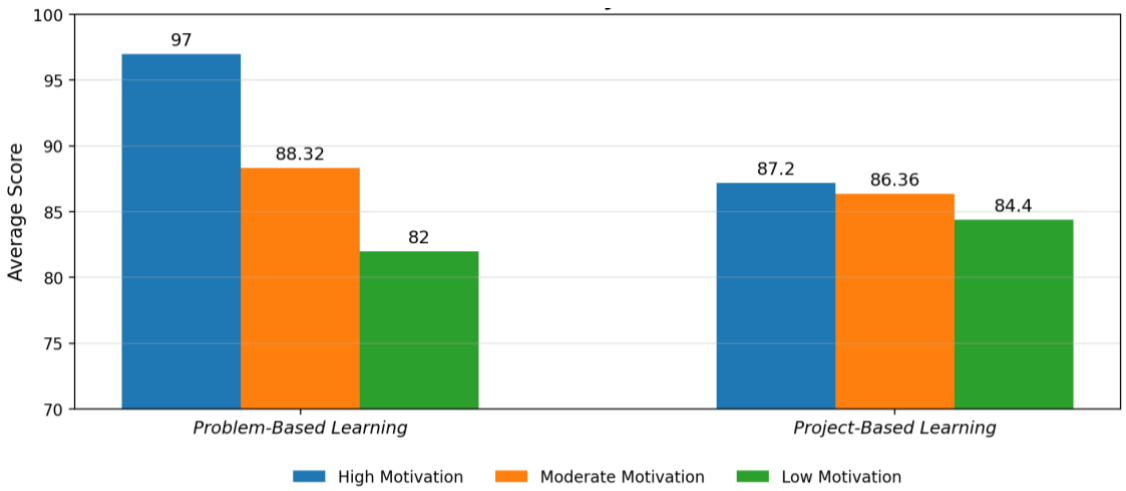

Figure 2. Comparison of Posttest Average Scores Based on Writing Motivation in PBL and PjBL Classes

Figure 2 shows the comparison of average posttest scores based on writing motivation in the PBL and PjBL classes. The high-motivation group in the PBL class achieved the highest mean score, while the PjBL class showed more evenly distributed posttest scores across motivation categories.

This trend is supported by studies by Arisman (2025), Aryandari (2025), and Adventi (2025), which show that motivation is related to students' perseverance, engagement, and the quality of written work. From a pedagogical perspective, motivation to write remains a key factor in learning to write news articles. Students with high motivation tend to be better prepared to engage in the writing process, revise their work, and complete assignments from start to finish. Ryan and Deci (2020) explain that motivation is linked to the quality of students' engagement, perseverance, and autonomy in learning. However, students with moderate and low motivation can still achieve good results when learning is supported by active models and interactive media.

To test whether these descriptive differences were statistically significant, a two-way ANOVA was conducted. Before the test was conducted, the data met the homogeneity requirement with a Levene's Test value of 0.217 > 0.05. Thus, the variance between groups was declared homogeneous and the two-way ANOVA could be conducted. The test results are presented in Table 4.

Table 4. Results of the Two-Way ANOVA Test on Learning Models and Writing Motivation

Source of Variation	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	597.537	5	119.507	13.872	0.000	0.562
Learning Model	92.252	1	92.252	10.709	0.002	0.165
Writing Motivation	372.783	2	186.392	21.636	0.000	0.445
Learning Model × Writing Motivation	181.333	2	90.666	10.525	0.000	0.280
Error	465.196	54	8.615	-	-	-

Based on Table 4, the two-way ANOVA results show that the learning model had a significant effect on students' final news writing performance, $F(1, 54) = 10.709$, $p = 0.002$, partial $\eta^2 = 0.165$. Writing motivation also had a significant effect, $F(2, 54) = 21.636$, $p < 0.001$, partial $\eta^2 = 0.445$. In addition, the interaction between learning model and writing motivation was significant, $F(2, 54) = 10.525$, $p < 0.001$, partial $\eta^2 = 0.280$. These findings indicate that students' final news writing performance was influenced by the learning model, writing motivation, and the interaction between the two variables. The corrected model explained 56.2% of the variance in students' final news writing performance, as indicated by $R^2 = 0.562$.

The independent-samples t-test also supported this finding. The initial ability test showed that the PBL and PjBL classes did not differ significantly before treatment, with a significance value of 0.486 > 0.05. This indicates that both classes started from relatively equivalent initial writing ability. After treatment, the final ability test showed a significance value of 0.040 < 0.05. This means that there was a significant difference in final writing performance between the PBL and PjBL classes. The PBL class obtained a posttest mean of 88.43, which was higher than the PjBL class mean of 86.19.

The main finding of this study is that both PBL and PjBL supported by RedaksiKita significantly improved students' news writing skills, but the PBL class achieved higher final performance than the PjBL class. The independent-samples t-test showed a significant difference in final writing ability between the two classes, while

ISSN: 2797-3174

the two-way ANOVA confirmed that the learning model, writing motivation, and the interaction between learning model and writing motivation significantly affected students' final news writing performance. These findings indicate that the effectiveness of news writing instruction is not determined solely by the learning model, but also by students' motivational characteristics. PBL appeared to be more powerful in guiding students to identify problems, verify facts, and organize information into news texts, especially among students with higher writing motivation. Meanwhile, PjBL remained effective because it provided structured stages for planning, drafting, revising, and completing written products.

The significant effect of the learning model shows that the characteristics of instructional design influence students' final achievement. PBL places stronger emphasis on problem investigation, fact identification, and information organization based on data. These characteristics are in line with the nature of news texts, which must be factual, objective, and organized according to the essential news elements of what, who, when, where, why, and how. PjBL, by contrast, emphasizes the production of written work through project stages. This model remains effective, but it requires longer time management and more intensive guidance.

The significant effect of writing motivation indicates that students with different motivation levels achieved significantly different final outcomes. Thus, writing motivation should not be treated merely as a supporting psychological factor; it is an important variable related to writing success. Students with high writing motivation tend to be more persistent in observation, information gathering, drafting, and revision. Nevertheless, students with moderate and low motivation still achieved good results when learning was supported by active instructional models and interactive media.

The significant interaction between learning model and writing motivation suggests that teachers should consider students' motivational profiles when selecting learning models. PBL can be highly effective when students are ready to face problems, investigate facts, and develop news based on data. PjBL can be selected when teachers want to emphasize gradual product development. Therefore, news writing instruction should be designed adaptively rather than assuming that one model fits all situations.

Although PBL showed stronger statistical and descriptive effectiveness in this study, PjBL still has pedagogical value. PBL offers advantages in time efficiency, classroom process control, and monitoring the originality of students' writing. Meanwhile, PjBL provides broader opportunities for students to develop written products through planning, drafting, revision, and evaluation. Therefore, teachers can select the model according to learning objectives, student characteristics, time availability, and classroom management needs.

3.1. Implications

The findings of this study have several pedagogical implications for news writing instruction at the junior high school level. First, teachers need to consider students' writing motivation when selecting instructional models because the effectiveness of PBL and PjBL was influenced by motivation levels. Second, PBL can be used when teachers aim to guide students in identifying problems, verifying facts, and organizing information into news texts more efficiently. Third, PjBL remains relevant when teachers want to provide students with broader opportunities to develop written products through planning, drafting, revision, and evaluation. In addition, the use of RedaksiKita as a web-based interactive medium can support students in understanding the essential news elements of what, who, when, where, why, and how, while also helping them produce news texts in a more structured and meaningful way.

3.2. Limitations

This study has several limitations. First, the participants were limited to two seventh-grade classes from two public junior high schools in Central Java, Indonesia, so the findings should be interpreted within this specific educational context. Second, this study focused on news writing skills and writing motivation; therefore, other factors such as vocabulary mastery, digital literacy, critical thinking, and writing anxiety were not examined in depth. Future studies may involve broader samples, different text genres, or additional learner characteristics to provide a more comprehensive understanding of how instructional models and interactive media influence students' writing performance.

4. Conclusion

Based on the research results, PBL and PjBL supported by the RedaksiKita web-based interactive medium are both effective in improving seventh-grade students' news writing skills. This is shown by the increase in the mean score of the PBL class from 59.68 in the pretest to 88.43 in the posttest and the increase in the mean score of the PjBL class from 58.38 in the pretest to 86.19 in the posttest. The independent-samples t-test showed a significant difference in final writing performance between the two classes, with a significance value of 0.040. The two-way ANOVA also showed that the learning model significantly affected students' final performance (Sig. = 0.002), writing motivation significantly affected final performance (Sig. = 0.000), and the interaction between learning model and writing motivation was also significant (Sig. = 0.000). These findings indicate that PBL

ISSN: 2797-3174

produced higher final achievement than PjBL in news writing instruction supported by RedaksiKita. Therefore, Indonesian language teachers need to select instructional models by considering students' writing motivation, learning objectives, time allocation, and classroom management needs.

Author Contributions

All authors contributed equally to this paper. All authors have read and approved the final manuscript.

Funding

No funding support was received.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/ or publication of this article.

Data Availability

The datasets generated during and/ or analyzed during the current study are available from the corresponding author on reasonable request.

Declaration on AI Use

The authors declare that no artificial intelligence (AI) or AI-assisted tools were used in the preparation of this manuscript.

References

Adventi, A. L., & Mali, Y. C. G. (2025). Exploring EFL students' motivational factors in an academic writing classroom. *Journal of English and Education (JEE), 11*(1). https://doi.org/10.20885/jee.v11i1.37665

Aegustinawati, A., Mulyati, Y., & Kurniawan, K. (2025). Development of news text writing e-module designing the concept of differentiation for senior high school students. *Jurnal Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran, dan Pembelajaran, 11*(1), 270–280. https://doi.org/10.33394/jk.v11i1.14790

Andani, S. T., & Anggraini, D. (2023). Eighth-grade junior high school students' news writing skills. *Pustaka: Journal of Language and Education, 3*(2), 48–58. https://doi.org/10.56910/pustaka.v3i2.467

Arends, R. I. (2012). *Learning to teach* (9th ed.). McGraw-Hill. https://www.mheducation.com/

Arisman, R. (2025). English writing motivation on junior high school students: The types and the levels. *Journal of Applied Studies in Language, 9*(1), 12–22. https://doi.org/10.31940/jasl.v9i1.12-22

Aryandari, G. A. N. S., Pramerta, I. G. P. A., & Widhiasih, L. K. S. (2025). The correlation between motivation and writing skill of the seventh-grade students. *Journal on Studies in English Language Teaching (JOSELT), 6*(1), 52–60. https://e-journal.unmas.ac.id/index.php/joselt/article/view/12039

Astuti, M. W. P., Arono, A., & Ariesta, R. (2025). The effect of the project-based learning model on the news writing skills of 11th-grade students at SMAN 2 Bengkulu City. *Jurnal Ilmiah Korpus, 9*(2), 284–294. https://doi.org/10.33369/jik.v9i2.40328

Budiyono, H., Suroso, S., & Priyanto, P. (2024). The implementation of writing instruction and the development of character values among high school students. *Jurnal Cakrawala Pendidikan, 43*(3), 694–710. https://doi.org/10.21831/cp.v43i3.59966

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications. https://edge.sagepub.com/creswellrd5e

Fiddin, M. F., Hafifah, T. M., Augustin, R. F., Librata, H. A., Priyantin, T., & Ruswardiningsih, D. (2025). Enhancing EFL writing instruction through problem-based learning: Insights from a classroom-based study. *Pedagogy: Journal of English Language Teaching, 13*(2), 247–261. https://doi.org/10.32332/joelt.v13i2.11348

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications. https://books.google.com/books/about/Discovering_Statistics_Using_IBM_SPSS_St.html?id=JIrutAEACAAJ

Graham, S., Kiuhara, S. A., & MacKay, M. (2020). The effects of writing on learning in science, social studies, and mathematics: A meta-analysis. *Review of Educational Research, 90*(2), 179–226. https://doi.org/10.3102/0034654320914744

Guo, P., Saab, N., Post, L. S., & Admiraal, W. (2020). A review of project-based learning in higher education: Student outcomes and measures. *International Journal of Educational Research, 102*, 101586. https://doi.org/10.1016/j.ijer.2020.101586

Mayer, R. E. (2021). *Multimedia learning* (3rd ed.). Cambridge University Press. https://www.cambridge.org/highereducation/books/multimedia-learning/FB7E79A165D24D47CEACEB4D2C426ECD

ISSN: 2797-3174

Muarifah, H. S., Hadi, W. P., Ahied, M., Rakhmawan, A., & Fikriyah, A. (2024). Analisis scientific writing skills peserta didik melalui pembelajaran model problem based learning berbantuan metode mind mapping. *Natural Science Education Research, 7*(2), 80–86. https://journal.trunojoyo.ac.id/nser/article/view/26306

Nurgiyantoro, B. (2018). *Competency-based language learning assessment*. BPFE-Yogyakarta. https://books.google.co.id/books?id=4rHZzwEACAAJ

Nur'aini, D. M. R., Sumarwati, S., Suryanto, E., & Suwandi, S. (2024). Keterampilan menulis teks berita ditinjau dari penguasaan kosakata dan motivasi belajar. *Widyantara, 2*(1), 62–72. https://doi.org/10.63629/widyantara.v2i1.56

Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS*. https://doi.org/10.4324/9781003117407

Paris, A. S., Hadi, M. W., & Rosyidi, A. Z. (2024). Implementing project-based learning model (PjBL) to develop students' writing skills in composing academic texts. *Jambura Journal of English Teaching and Literature, 5*(2), 102–113. https://doi.org/10.37905/jetl.v5i2.28297

Pratama, D. (2025). Animated video learning media improves middle school students' news text writing skills. *Jurnal Pendidikan dan Pengajaran, 58*(2), 387–395. https://doi.org/10.23887/jpp.v58i2.89998

Qadryanti, N., Kurnia, F. D., & Fadilah, E. (2023). Problem-based learning approach to improve writing skills for post graduate students. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal), 5*(1). https://doi.org/10.33258/birci.v5i1.4270

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology, 61*, 101860. https://doi.org/10.1016/j.cedpsych.2020.101860

Sari, Y. I., Sumarmi, Utomo, D. H., & Astina, I. K. (2021). The effect of problem-based learning on problem-solving and scientific writing skills. *International Journal of Instruction, 14*(2), 11–26. https://doi.org/10.29333/iji.2021.1422a

Savery, J. R. (2006). Overview of problem-based learning: Definitions and distinctions. *Interdisciplinary Journal of Problem-Based Learning, 1*(1), 9–20. https://doi.org/10.7771/1541-5015.1002

Sugiyono. (2023). *Quantitative, qualitative, and R&D research methods*. Alfabeta. https://elibrary-dev.nusamandiri.ac.id/readbook/240077/metode-penelitian-kuantitatif-kualitatif-dan-r-d.html

Suteja, S., & Setiawan, D. (2022). Students' critical thinking and writing skills in project-based learning. *International Journal of Educational Qualitative Quantitative Research, 1*(1), 16–22. https://doi.org/10.58418/ijeqqr.v1i1.5

Winarni, R. (2023). The effect of project based learning on creative writing skills in elementary school students: Multivariate analysis of variance on themes, diction, imagination. *Jurnal Iqra': Kajian Ilmu Pendidikan, 8*(2), 120–129. https://doi.org/10.25217/ji.v8i2.2826

Wulandari, N., Murniviyanti, L., & Armariena, D. (2024). Pemanfaatan aplikasi Canva dalam peningkatan keterampilan menulis teks berita siswa tingkat SMP. *Jurnal Bahasa dan Sastra, 12*(3), 567–578. https://doi.org/10.24036/jbs.v12i3.123812

ISSN: 2797-3174