



Scaffolding Creativity: Integrating Problem-Based Learning with Liveworksheets to Enhance Poetry Writing Skills in High School

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Keywords

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ABSTRACT

Classroom observations in an eleventh-grade class at Muhammadiyah 1 Senior High School Sragen revealed low student engagement and limited poetry writing skills. To address this issue, this study examined the implementation of Problem-Based Learning (PBL) supported by Liveworksheets electronic student worksheets in poetry writing instruction. Using a descriptive qualitative case study design, data were collected through classroom observations, interviews with Indonesian language teachers, and questionnaires administered to 26 eleventh-grade students. The data were analyzed thematically following Braun and Clarke's framework, with credibility ensured through data triangulation. The findings indicate improved student engagement, increased participation in learning tasks, and more positive perceptions of the learning process. Students also demonstrated greater involvement in collaborative dialogue during poetry writing activities. These results suggest that integrating interactive digital worksheets with problem-based learning can enhance student engagement and support the development of poetry writing skills at the senior secondary level.

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INTRODUCTION

Literature education in high school Indonesian language classes on the subject of poetry writing faces a problem. This problem includes teachers who still use conventional teaching models, causing students to experience difficulties in understanding the material and practicing poetry writing. The poetry writing material aims to enhance students' creativity in writing activities. However, when asked to write poetry, students admit that they often have difficulty expressing their ideas. This occurs due to a lack of mastery of word choice. In line with Amalia et al., (2020) who stated that not all students can write

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poetry easily due to their limited vocabulary compared to students who are skilled in playing with words. This shows that the more vocabulary students have, the easier it is for them to write poetry.

The integration of digital learning media with student-centered approaches can support the improvement of students' vocabulary mastery. According to Adellasari & Huda (2023), learning media that requires students to be active can motivate them. Through the use of interactive media, learners are able to comprehend the material more effectively while remaining engaged throughout the learning activities. This is consistent with the findings of Nadifatinisa & Sari (2021), who state that learning technology tailored to students' needs and instructional content contributes to enhanced student understanding. This is reinforced by Noviafitri & Huda (2025), who state that interactive learning media that apply a feedback pattern can make learning interactive and enjoyable. Such technology-based learning media, such as liveworksheets electronic worksheets, can help students improve their vocabulary by utilizing relevant and interactive features.

Student Worksheets are exercise sheets created by teachers as one of the teaching tools to deliver material to students. The implementation of electronic LKPD as a digital learning tool for students represents one of the innovative approaches in modern education (Hurrahma & Sylvia, 2022). According to , interactive digital learning media can be used in every learning activity because it is considered capable of increasing students' interest in learning, and digital media is practical and flexible in its use. The use of liveworksheets, which are interactive Student Worksheets, can help students master vocabulary through interesting features. As stated by Firtsanianta & Khofifah (2022), the use of liveworksheets electronic student worksheet can help students in doing exercises through features available on the platform, including YouTube videos, images, matching, drag and drop, short and long answers, and join with arrows. The use of these features can develop students' mastery of word choice in writing poetry.

Learning through digital media cannot be separated from the learning model used in the process. Interactive worksheets that focus on teaching poetry writing skills can be supplemented with the Problem-Based Learning (PBL) model because students must have the ability to solve problems they encounter when writing poetry. This has been stated by Rahman et al., (2024), who argue that problem-based learning models are an

alternative for teachers who emphasise learning through problem solving, cooperation, and the application of knowledge in real life. This model can enable students to become more involved in the learning process. In teaching poetry writing, the problem-based learning model can be used by focusing on the difficulties experienced by students in the process of writing poetry. Focusing on these difficulties involves giving students exercises to brainstorm finding the right diction, developing figures of speech, and composing themes that are appropriate to the content of the poem. These activities are carried out so that students can practise thinking creatively to express their ideas freely, resulting in good quality poetry.

Problem-based learning models require students to have the ability to solve problems and resolve them through cooperation and discussion. This is in line with Mubarokah & Huda (2025) if students are given the opportunity to develop language skills through discussion and collaboration applied in active learning. It is these collaborative and discussion activities that enable students to enhance their creativity in writing poetry. Problem-based learning involves students as the main actors in the learning process, and the learning objective is to help students understand what they are learning. Ramdani et al., (2022) stated that teacher-centered learning makes students easily bored and tired, which results in students not understanding the material, thereby causing their learning outcomes to decline. Therefore, the implementation of active learning strategies is essential in the teaching process to foster greater student interest and motivation in learning.

The application of interactive liveworksheets based on Problem Based Learning in teaching poetry writing can help improve students' understanding and poetry writing skills. Students will be invited to practice writing poetry through video presentations on liveworksheets, which provide problems that students can then use as inspiration for writing poetry. There is still limited research exploring the application of interactive electronic worksheets (liveworksheets) based on problem-based learning in teaching poetry writing skills. Research on poetry writing often utilizes learning media such as audiovisuals, multimedia, Wattpad, and audiovisuals. Research that does utilize liveworksheets is limited to other subjects, such as social studies, science, mathematics, and chemistry. This is because previous studies have focused on combining the

application of other interactive learning media with problem-based learning methods in subjects and skills at the high school level.

The combination of Liveworksheets and problem-based learning models provides an efficient learning framework for improving poetry writing skills, thanks to Liveworksheets' potential in providing interactive vocabulary exercises, multimodal learning experiences, and instant feedback, as well as Problem Based Learning's ability to organise the problem-solving process in a creative and meaningful way. Students are guided to determine their choice of words, imagery, and figures of speech as solutions in the form of written works for the problems they face through the presentation of contextual problems in Liveworksheets, so that the process of writing poetry does not only focus on the end result but also on the development of critical and creative thinking processes.

Therefore, research on interactive liveworksheets Electronic Student Worksheet learning media based on problem-based learning in teaching poetry writing skills is new. The poetry writing skills of high school students are essential for building and developing their creativity and imagination through writing. Therefore, to understand how this integration can overcome problems of student engagement and vocabulary mastery, and ultimately foster creativity and improve poetry writing skills, this study examines the use of PBL-based Liveworksheets in poetry teaching.

METHOD

This research used a qualitative case study approach. The study was conducted in October 2025 at Muhammadiyah 1 Sragen Senior High School. In this study, the data sources were Grade XI Academic students and Indonesian language teachers at Muhammadiyah 1 Sragen Senior High School. Three techniques were used to collect data: (1) 26 Year 11 academic programme students were observed using structured observation sheets that focused on student interactions, engagement in task completion, and use of Liveworksheets features; (2) semi-structured interviews with Indonesian teachers were conducted to explore their perceptions of the impact of teaching strategies on student learning processes; and (3) all 26 students were given an open-ended

questionnaire to provide feedback on the learning process and challenges they faced after using problem-based learning-based liveworksheets media.

The data from all sources were analyzed using thematic analysis (Braun & Clarke, 2006, as cited in Heriyanto, 2018): This involved (1) repeated reading of all data observation notes on student interaction patterns, transcripts of teacher interviews about learning changes, and student questionnaire responses about learning to write poetry using problem-based learning-based liveworksheets; (2) coding the data by identifying meaningful units, such as student participation during the learning process, teachers' statements about increased student motivation in interviews, and students' expressions of difficulty and positive responses to writing poetry after learning from the questionnaire; (3) grouping these codes into main themes, such as the application of problem-based learning worksheets in poetry writing learning and student responses after learning; and (4) reviewing the themes to ensure their relevance to the research objectives regarding the implementation of PBL and Liveworksheets in poetry writing learning.

Data validity uses technical triangulation. Sugiyono (2023:368) Triangulation can be used to check data based on several sources, methods, and time. In this study, triangulation of methods was applied by comparing and verifying findings from the three data sources. Specifically, findings from classroom observations, such as active engagement and the quality of student discussions in groups, were matched with teacher interview data, such as teachers' perceptions of changes in student activity and motivation during PBL learning, and student questionnaire responses regarding their experiences of collaboration, perceived difficulties, and benefits gained from using Liveworksheets.

RESULT AND DISCUSSION

Results

The process of implementing interactive liveworksheets based on problem-based learning in teaching poetry writing consists of three stages, namely the preparation stage, the implementation stage, and the evaluation stage. The following is a description of each stage.

Preparation Stage

Indonesian language learning at SMA Muhammadiyah 1 Sragen has utilised innovative learning media and models. As stated by the Indonesian language teacher in an interview on 10 October 2025, Indonesian language learning has employed problem-based learning models and digital media such as PowerPoint and Quizziz. However, despite the use of innovative learning media and models, students still face challenges in completing their assignments. Therefore, the effectiveness of these methods is still considered suboptimal. As such, the utilisation of interactive liveworksheets based on PBL (Problem-Based Learning) has introduced a new atmosphere in the classroom.

The preparatory stage in implementing Interactive Student Worksheets liveworksheets began with introducing Interactive Student Worksheets liveworksheets to students. The researcher explained how Interactive Student Worksheets liveworksheets work and their advantages, which would be used as a learning medium during the learning process. This statement is in accordance with the notes contained in the observation sheet, 'Providing a brief explanation and introduction on how the Interactive Student Worksheets liveworksheets work as a technology-based learning medium' (Observation, 10 October 2025). Next, the researcher explained the features contained in the platform and how to use them.

Interactive Liveworksheets are prepared using elements provided by the platform. Liveworksheets have various elements such as Textfield, Checkboxes, Select, Word search, SimpleText, Speak, Drag, Drop, Join, Play MP3, Boost Value, Open Answer, Listening, Link, Single Choice, PowerPoint, and YouTube player. All of these elements can be used in designing interactive Student Worksheets according to needs.

The introduction to the liveworksheets platform was conducted using a projector provided in the classroom so that all students could watch and understand how it works and its elements. The introduction to liveworksheets generated enthusiasm among the students. This was recorded in the observation sheet: 'The students were enthusiastic about the explanation of the liveworksheets Electronic Student Worksheets because previously the teacher had never used these Electronic Student Worksheets as a technology-based learning medium in the classroom' (Observation, 10 October 2025). In addition, the demonstration of the process of working on the questions and how to submit

the answers was also carried out slowly so that the students could understand better. This is shown in the observation sheet notes: ‘Students were guided in working on and submitting their answers on the Student Worksheet’ (Observation, 10 October 2025).

Implementation Stage

The implementation stage began with asking questions to spark students' interest in learning and perception, which aimed to link general knowledge about poetry with how to write good poetry. Based on the observation results, ‘Students do not yet understand the material on writing poetry’ (Observation, 10 October 2025). The next step was to give students the task of writing poetry independently with the stipulation that they could choose any theme. The poetry writing assignment was given to assess the students' initial writing skills before using the liveworksheets Electronic Student Worksheet in learning. Based on observations, ‘When writing poetry before using the liveworksheets Electronic Student Worksheet, many students were confused about how to start writing poetry’ (Observation, 10 October 2025). During the conventional poetry writing activity, many students said they were confused about what to write about. In response to this situation, it became necessary to provide students with an introductory explanation of how to write poetry.

After the initial assignment, the next step was to provide students with a stimulus in the form of a video as an initial overview before writing poetry. Next, the problem-based learning model was used to guide a focused discussion that reminded students about how to write poetry. The Indonesian language teachers stated that they had applied the five core stages of the Problem-Based Learning model in the classroom, which consisted of problem orientation, student organization, guided individual or group inquiry, presentation of outcomes, and evaluation of the problem-solving procedures. The following section presents a more detailed description of the findings obtained from the research.

1. Problem Orientation

In this first stage, researchers accompanied by teachers gave instructions to students to watch the video displayed on liveworksheets. The video was a short video showing social issues related to poverty. Students were asked to observe and express their feelings and opinions through a word that they felt when watching the video.

Based on observations, ‘Students watched the video carefully and then answered the teacher's questions about what they felt and the atmosphere depicted in the video.’ (Observation, 10 October 2025).

2. Organising Students for Learning

After the students finished watching the video, they were divided into four groups of 5 to 6 people. At this stage, the teacher gave the students instructions on several exercises to be completed in groups. Students who are active during discussions will easily improve their understanding and knowledge because they often ask questions and share opinions with their group mates. They are then assigned to share tasks by discussing and collaborating to answer the questions on the liveworksheets. The answers listed on the Interactive Student Worksheets liveworksheets are the results of discussions and collaborations that have reached a mutual decision.

3. Guiding Individual or Group Investigations

The teacher guided the students to find inspiration for words to use in their poems by using the Online KBBI (Big Indonesian Dictionary). The students discussed in groups to find suitable keywords to include in their respective poem drafts. Based on observations, ‘The students actively discussed with their groups and wrote down their answers on liveworksheets.’ (Observation, 10 October 2025). Based on the questionnaire, students became more active when solving problems using the PBL model. In addition, students also look for references and information to deepen their understanding of the material by reading books, searching websites, or asking questions directly to sources.

Students were very interested in using the features available on liveworksheets. During the discussion to find the answers and the right diction for the poem, one of the students said that the features available on liveworksheets made them more enthusiastic about writing poetry and that it was a new experience in writing poetry (Interview, 10 October 2025). After obtaining the right words to include in the poem, the students individually practised writing poetry in the answer column provided on the platform. The results of the observation were that ‘the students looked very focused when typing their answers in the form of word choices

on the electronic worksheet; they easily typed their poems on the platform' (Observation, 10 October 2025).

4. Presenting Work Results

Next, each representative from the group will present the results of their poetry writing, which has been discussed in groups. The poetry works are presented by being read aloud in front of the class with confidence. Students who are not yet taking turns to present their work listen carefully and attentively. Based on observations, 'Students who are presenting their work in front of the class use a loud voice and are full of emotion, while their friends listen attentively' (Observation, 10 October 2025). Based on the questionnaire results, it appears that students have increased confidence in expressing their ideas for writing poetry. At this stage, students actively respond to the group that is presenting by asking questions about the poetry being presented. This activity can reveal the ability to express opinions with confidence.

5. Analysing and Evaluating the Problem-Solving Process

At this stage, students and teachers reflect on the learning activities that have taken place. The teacher asks students about any difficulties they encountered during the process of writing poetry based on the video that was presented. In addition, reflection is also carried out by looking back at what was done from the orientation stage to the stage of presenting the results of their work. Based on the observation results, 'Students can mention and explain the difficulties they encountered during the process of writing poetry. The difficulties were in determining the right diction and composing coherent lines. However, these difficulties could be overcome by conducting group discussions' (Observation, 10 October 2025). This is in line with the questionnaire data, in which students felt that they did not find it difficult to write poetry after the implementation of the problem-based learning model. In addition, the teacher also provided feedback on the poems that had been presented and produced in accordance with aspects of poetry such as the accuracy of diction, the appropriate use of rhyme and rhythm, and the suitability of the theme and title based on the issues raised in the video. Based on the questionnaire results, 'Students were greatly assisted by the use of liveworksheets in determining the elements of poetry so that they could produce good poetry.' (Questionnaire, 10 October 2025). This shows that the use of

problem-based learning liveworksheets is very useful for students to better understand the elements of poetry that must be present when writing poetry.

Evaluation Stage

During the evaluation stage, teachers and students reflected on the process of learning to write poetry with the help of liveworksheets based on problem-based learning. Teachers asked students to recall the stages of learning to write poetry and the difficulties they encountered during the learning process. Based on the observation results, 'Students mentioned the difficulties they faced during the learning process of writing poetry with the help of PBL-based liveworksheets. However, these difficulties could be overcome by conducting group discussions' (Observation, 10 October 2025). The teacher also appreciated the students' confidence in presenting their poetry in front of the class and provided feedback on the elements of poetry used by the students. Based on the questionnaire data, students' confidence increased when expressing their ideas for writing poetry after the implementation of PBL-based liveworksheets. At the end of the evaluation stage, students were given the opportunity to provide their impressions and feedback on the learning process. Based on observation data, 'The students' response was very positive, stating that learning became more enjoyable and motivating due to the use of interactive media' (Observation, 10 October 2025), and based on the questionnaire, 'Students stated that the features available in Liveworksheets helped them understand the material on writing poetry and made it more interesting and modern' (Questionnaire, 10 October 2025).

Discussion

Theme 1: Enhanced Student Participation and Active Engagement

Participation of students in the process of learning to produce poetry using live worksheets and problem-based learning When compared to learning with traditional student worksheets, electronic student worksheets shown an increase. The results show that when students use the PBL methodology to solve problems, they become more engaged. From problem orientation to problem solving using interactive digital technology, students are actively involved in their education. Students actively respond to the questions posed by each teacher. Additionally, students work together with their

peers to address problems that call for everyone's participation. Students become the primary actors in the learning process as a result. These results are in line with previous research on student engagement and technology-based learning. By meeting students' needs to learn independently, feel competent, and connect with others, interactive digital learning has been proven to increase student engagement (Chiu, 2021). Furthermore, the results of a systematic study show that technology-assisted learning is more effective when digital media not only replaces conventional learning but also motivates students to be active, think, and interact in the learning process (Sailer et al., 2024). Thus, the use of Liveworksheets based on Problem-Based Learning in this study is consistent with the theoretical perspective that highlights the importance of meaningful learning experiences and student engagement in thinking through the use of digital media.

Additionally, when students paid close attention to the videos in the live worksheet and were able to respond to questions about their emotions, the learning process became more engaging. Additionally, students eagerly offered their peers who were giving presentations in front of the class questions and comments. This makes it possible for the Problem-Based Learning approach to motivate students to actively participate in debates, such as offering comments on problem-solving strategies.

According to Novit et al., (2025), the problem-based learning stage of presenting and showing work can promote active student engagement through questions and replies. Results from this session, however, reveal a more precise nuance: students were "watching the videos in the liveworksheet attentively" in addition to actively asking questions (Observation, October 10, 2025). This suggests that a clearer emphasis for peer criticism may have been achieved by using digital artifacts in the form of Liveworksheets as visible and accessible group deliverables. In other words, because it offers a visual and interactive context that encourages in-depth discussion and more focused criticism, this interactive digital format seems to be able to structure student participation more successfully than standard static group reports.

Theme 2: Student Discussion and Collaboration in Learning

Participation of students in group discussions shows active learning dynamics. According to the findings of the observation, "Students actively discuss with their groups

and write down their answers on online worksheets" (Observation, October 10, 2025). In order to choose the proper language for their poetry, participants in this cooperative exercise must negotiate meaning. According to Lestari et al., (2021), discussion and teamwork exercises can enhance comprehension of the topics being covered, with engaged students readily expanding their knowledge through the sharing of viewpoints. The results of this study, however, point to a more precise mechanism: rather than merely "sharing opinions" in general, students participated in the process of collectively searching for keywords using the online KBBI and came to a consensus through aesthetic arguments regarding diction choices (Observation, October 10, 2025). Put differently, the cooperation that took place was a technologically mediated co-construction of linguistic and artistic knowledge.

According to Mayasari et al., (2022), students engaged in conversations and looked up references to increase their comprehension. These conclusions were further supported by the study's observations, which demonstrated that reference searches were integrated into the creative process rather than carried out as a distinct step. In addition to improving their cognitive comprehension, students who use the online KBBI to look up more poetic terms also gain linguistic sensitivity the capacity to discern subtle differences in meaning between words that are essential when creating poetry. This demonstrates how the incorporation of technology may make information seeking a natural element of the creative process rather than just an extra task.

Digital writing platforms can provide a collaborative environment to promote higher-order thinking and enhance writing abilities, according to Eragamreddy & Joseph, (2025). This study supports this assertion by demonstrating how Liveworksheets uses digital scaffolding to support higher-order thinking. Students' cognitive load is lessened by this platform's interactive components, which include text areas for brainstorming and comment options for feedback. Because "students appear to be very focused when typing their answers," Liveworksheets promotes more balanced contributions than traditional collaboration, which frequently leads to uneven involvement (Observation, 10 October 2025). Each student can contribute in writing thanks to the individual workspace feature, which democratizes cooperation by giving everyone in the group equal place to express themselves.

These results show that the synergy of instructional design, technology affordances, and student collaborative activities determines how effective collaborative learning is. By offering a framework that fosters in-depth cooperation and higher-order thinking in the context of creative writing, PBL-based Liveworksheets establish a learning ecosystem where technology improves social interaction and cognitive processes.

Theme 3: Enhancing Student Creativity in Writing Poetry

The evaluation's findings demonstrate that students' inventiveness when writing poems has increased as a result of using interactive worksheets based on problem-based learning. The kids' capacity to employ more diversified vocabulary, produce rich poetic imagery, and communicate their feelings more fully are all signs of this progress. According to the findings of the observation, "the poems produced by students showed a clear improvement during the question and answer session about the elements of poetry, where each student's writing contained poetic elements, including diverse diction, imagery, and style" (Observation, 10 October 2025). According to Rismiyani et al., (2023), offering instructional videos as audiovisual media can improve students' poetic creativity. The results of this study, however, point to a more precise mechanism: the films displayed in liveworksheets serve as both visual cues and emotional anchors that elicit strong emotional reactions. Students "watch the video carefully and then answer questions about what they feel and the atmosphere depicted in the video" (Observation, October 10, 2025), suggesting that a cognitive-emotional pathway that enables the conversion of visual experiences into unique poetic expressions has been created by combining audiovisual stimuli with scaffolding in the form of reflective questions.

According to Saragih et al., (2024) and Layal et al., (2022), students' comprehension of poetry writing content can be enhanced by using visual media in conjunction with problem-based learning. By demonstrating that the incorporation of interactive visual media with organized PBL stages not only improves attention and comprehension but also speeds up the creative elaboration process, this study broadens our understanding. Students in this study underwent a group investigation stage where they "sought inspiration for words using the online KBBI," in contrast to traditional

learning, where "many students are confused about how to start writing poetry" (Observation, 10 October 2025). This cooperative process of looking for diction shows that PBL-based liveworksheets have given students access to a digital creative workspace that promotes methodical linguistic research as opposed to depending only on impromptu imagination. According to Yuniati et al., (2022), interactive components make worksheets more useful for creative opinion expression. The results of the questionnaire, "Students are greatly assisted by the use of interactive worksheets in determining the elements of poetry so that they can produce good poetry," are expanded upon in this study. (Questionnaire, October 10, 2025) According to the survey results, students also admitted that using LiveWorksheets electronic worksheets based on problem-based learning when teaching poetry helped them comprehend the components of poetry and the processes of composing poetry. "Students appear to be very focused when typing their word choices; they easily type their poems on the platform" (Observation, 10 October 2025) indicates that the usefulness of LiveWorksheets' interactive features has lessened students' cognitive load in the technical aspects of writing, freeing up their cognitive capacity to focus on creativity.

While Zou et al., (2025) explain that digital e-learning platforms improve learning through accessibility, flexibility, and personalization, Zakaria et al., (2019) claim that issue-based learning improves critical thinking and problem solving. The results of this study show that the impact can be extended to the field of literary creation when these two components are combined. Writing poetry entails tackling intricate aesthetic problems, like as converting societal issues from videos into literary expressions that have meaning. PBL fosters creative problem-solving abilities unique to literary writing, as seen by students' identification that "the difficulty lies in determining the right diction and composing coherent lines, but this can be overcome through group discussions" (Observation, October 10, 2025). Each student can convey their own perspective through several choices of language, style, and imagery thanks to digital platform-facilitated personalization, developing a unique creative voice in a structured yet adaptable learning environment. The cognitive-emotional scaffolding of PBL, the interactive affordances of live worksheets, and social collaboration all work together to create a learning ecosystem

that fosters the growth of literary creativity, which is why poetry writing creativity has increased.

This study shows that the sequential structure of PBL provides the pedagogical framework necessary for the open potential of Liveworksheets. The platform's interactive features (e.g., embedded videos, typing fields) become meaningful tools for problem-solving at certain stages in PBL, transforming poetry writing from an isolated and daunting task into a collaborative and structured process. This integration directly addresses initial issues related to low vocabulary mastery and lack of engagement, as evidenced by the collaborative work observed, students' self-reports, and improvements in the technical quality of the final poems.

CONCLUSION

This study's goal of examining how Problem-Based Learning (PBL)-based Liveworksheets are used to teach poetry writing skills is accomplished by showing that the alignment between structured PBL stages and the interactive affordances of the platform determines how effective these worksheets are. Liveworksheets serve as instructional scaffolds that facilitate cooperative problem solving, methodical investigation of vocabulary and imagery, and reflective learning in addition to being digital worksheets. While group inquiry and assessment stages boost confidence, engagement, and comprehension of poetic aspects, audiovisual stimuli aid students in coming up with ideas during the problem orientation stage. These results suggest that rather than relying solely on technology, pedagogy, technology, and social interaction work together to boost students' creativity and engagement. The central conclusion is that the PBL model provided the essential pedagogical scaffold that transformed Liveworksheets from a simple digital worksheet into a dynamic platform for collaborative poetry writing. For practitioners, this study provides a replicable model showing that integrating specific PBL stages with targeted digital tool features can effectively scaffold students' creative processes and improve engagement and poetry writing skills.

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