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Research Article

Implementation of Problem-Based Learning Assisted by Canva to Complete Assignments in Science Learning for Class V SDN Kendal

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Abstract: This conceptual study discusses the implementation of the Problem-Based Learning (PBL) model assisted by Canva to support task completion in the Science and Social Studies (IPAS) subject for fifth-grade students at SDN Kendal. The PBL model encourages students to actively solve contextual problems, while Canva serves as an interactive visual tool to enhance idea presentation and student outcomes. This study outlines the implementation stages based on PBL syntax: problem orientation, organization, investigation, development and presentation, as well as analysis and evaluation. The findings indicate that integrating PBL with Canva enhances students' critical thinking, creativity, visual literacy, and communication skills. Challenges such as limited device access and varying levels of digital literacy can be addressed through short training, time management, and alternative manual tasks. This study recommends this approach as an innovative strategy to improve the effectiveness of IPAS learning at the elementary level.

Keywords: Canva; Creativity; Fifth Grade; Problem-Based Learning; Science; Visual Literacy.

1. Introduction

Problem-Based Learning (PBL) is a learning model that emphasizes the active involvement of students in solving real problems as a way to gain new knowledge. (Salsabila et al., 2024) . This model places problems as the main trigger to start the learning process and encourages students to think critically, work together, and build their own knowledge.

According to Alreshidi , et al (2024) Problem-Based Learning is an instructional method in which students learn through facilitated problem solving. Students work in collaborative groups to identify what they need to learn in order to solve a problem .

That is, PBL is a learning method that involves students in problem solving facilitated by the teacher. Students work in collaborative groups to determine the information they need to learn in order to solve the problem.

Purwoko (2025) also stated that Problem-Based Learning is a learning approach that begins with real-world problems that are used to stimulate student learning. This learning helps students to understand the material more deeply through an active inquiry process.

Meanwhile, Rauf et al ., (2022) states that PBL is a learning approach in which students face unstructured and complex problems, then work together to solve them with the guidance of the teacher as a facilitator.

PBL is a method that provides real problems as learning triggers, encourages students to think critically, collaborate, find solutions, and reflect on their learning outcomes (Sihotang, 2024) . A study conducted by Sari et al., (2024) shows that the application of PBL in differentiated learning has a positive effect on improving students' critical thinking skills and cognitive learning outcomes. In addition, students show increased learning motivation because they feel directly involved in the process of finding solutions to contextual problems (Sofyani et al ., 2025) .

The implementation of PBL will be more effective and interesting if combined with learning technology. Technology allows access to broad information, provides interactive

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media for concept exploration, and supports collaboration between students even though they are in different locations. (Rauf et al., 2022) . The use of digital applications, the internet, educational videos, and simulations can facilitate students in exploring information and presenting solutions creatively. According to Jasrio et al., (2022) , technology integration in Problem-Based Learning can increase students' learning motivation and strengthen deep understanding of concepts.

One of the digital media that can be used to support the implementation of PBL is Canva. Canva is an easy-to-use web-based graphic design platform that allows students to create presentations, posters, infographics, and other visual media creatively and collaboratively. (Aliyah et al., 2025) . In the context of PBL, Canva can be used by students to visualize solutions to the problems they discuss, create interesting assignment reports, and independently compile group presentations. The use of Canva not only improves students' technological skills but also trains critical thinking, visual aesthetics, and communication skills.

Furthermore, Akbar et al ., (2023) emphasized that technology can strengthen the collaborative and reflective aspects of PBL because it allows students to record, review, and evaluate their learning process more flexibly. In addition, technology supports learning differentiation because students can learn according to their own pace and learning style through various digital sources.

This article aims to examine the implementation of Canva technology-based PBL in science learning in elementary schools in the Merdeka Curriculum, and to identify the challenges and opportunities that accompany it.

2. Theoritical Study

2.1 Problem Based Learning (PBL)

Problem-Based Learning (PBL) is a learning approach developed to foster critical thinking skills, problem solving, collaboration, and learning independence through the presentation of real problems as the main trigger for learning. Aisyah et al., (2022) . This model emphasizes the active involvement of students in every stage of the learning process, starting from problem identification, information search, analysis, to delivering solutions.

According to Asrofi et al., (2024) , PBL is a learning method that encourages students to learn through problem solving facilitated by teachers. Students work in groups to identify their learning needs, explore relevant information, and develop solutions to the problems faced. Meanwhile, Sujanem et al., (2025) emphasizes that PBL is designed to enhance higher-order thinking skills through active exploration of complex and contextual problems.

Suswati (2021) added that PBL contains main characteristics such as: student-centered learning, utilization of authentic problems, small group work, the role of the teacher as a facilitator, and the existence of learning reflection. These characteristics make PBL very relevant in science learning, because it is able to link scientific concepts with real-life phenomena that are close to the social and natural environment of students.

2.2 Technology Integration in PBL

The development of digital technology provides a great opportunity to strengthen the implementation of PBL in the classroom. (Utami et al., 2025) . Technology allows students to access various sources of information, collaborate online, present learning outcomes visually and interactively, and reflect on their learning process. Technology integration also supports a differentiated learning approach because it provides flexibility in presenting materials and activities according to individual student needs (Pratomo et al ., 2024) .

In the context of science learning in elementary schools, technology such as Canva can be used to visualize analysis results, compile problem-solving reports, and strengthen communication of students' ideas. (Baroroh et al., 2024) . Canva is an intuitive, easy-to-use graphic design platform that provides a variety of relevant educational templates. (Huda et al., 2023) . This application not only facilitates students' creativity and expression, but also trains digital literacy and visual communication skills which are important in mastering 21st century competencies.

Previous studies have shown that technology integration in PBL can significantly increase student learning motivation, conceptual understanding, and engagement (Mawardi et al., 2025) . In project-based learning, the use of digital media such as Canva allows students

to represent their thoughts and solutions in a more interesting and easily understood way by the audience. (Maysaroh et al., 2025) .

2.3 PBL and Independent Curriculum

The Independent Curriculum demands the implementation of contextual, differentiated learning, and is oriented towards strengthening the Pancasila Student Profile. In this case, PBL is one of the most appropriate approaches because it is able to facilitate diverse learning needs, encourage active student participation, and foster characters such as critical reasoning, creativity, mutual cooperation, and independence. (Riska et al., 2025) .

PBL supports learning principles that provide space for students to experience authentic and meaningful learning processes. (Manein et al., 2025) . By involving students in solving problems that occur in the surrounding environment, the learning process becomes more relevant and applicable. The application of PBL in science also supports cross-disciplinary integration which is a characteristic of thematic learning in elementary schools.

Thus, Problem-Based Learning supported by technological media such as Canva can be an innovative learning strategy that bridges the demands of the Independent Curriculum with the real needs of students to learn actively, creatively, and reflectively. (Akbar et al., 2023).

3. Method

This study uses a literature review method, which is a study approach carried out by reviewing, analyzing, and synthesizing various relevant and credible library sources in order to gain a deep understanding of the study topic. The literature review does not involve direct field data collection, but focuses on reviewing the findings that have been produced by previous authors (Sari, 2024) . In this context, the author systematically reviews a number of scientific journals, academic articles, and reference books that discuss the Problem-Based Learning (PBL) learning model, the use of Canva media in learning, and students' ability to complete assignments in Natural and Social Sciences (IPAS) subjects at the elementary school level, especially grade V.

Library sources were collected through searches in various academic databases, such as Google Scholar, Garuda Ristekbrin, and higher education institution repositories, using certain relevant keywords. The search process focused on publications within the last 10 years to ensure the topicality and relevance of the information. The source selection criteria include:

- The topic must be in accordance with the focus of the study,
- sources must come from credible journals or publishers, and
- The studies in the source must have a real contribution to the understanding of PBL, the use of Canva, or improving students' task completion abilities.

The results of this study are used to develop a comprehensive conceptual understanding of how the implementation of the Canva-assisted Problem-Based Learning model can improve students' skills in completing science learning tasks. Through this approach, researchers can also identify research gaps and formulate theoretical and practical implications that can be applied in the context of elementary education, especially at SDN Kendal.

4. Results and Discussion

The results of the literature review show that the application of the *Problem-Based Learning* (PBL) model combined with digital media such as Canva in science learning for grade V of elementary school has great potential in improving students' task completion abilities. Based on the analysis of various relevant studies and literature, there are several main findings that can be discussed as follows:

4.1 Steps for Using Canva in the Problem-Based Learning (PBL) Model

In the implementation of the Problem-Based Learning (PBL) model, Canva can be used as a medium to visualize solutions to problems analyzed by students. The following are the stages of using Canva that can be integrated into the PBL process:

4.1.1 Create a Canva Account

Students are invited to access the site www.canva.com and create an account first using their email or Google account. This aims to allow them to save and re-access their design results at any time.

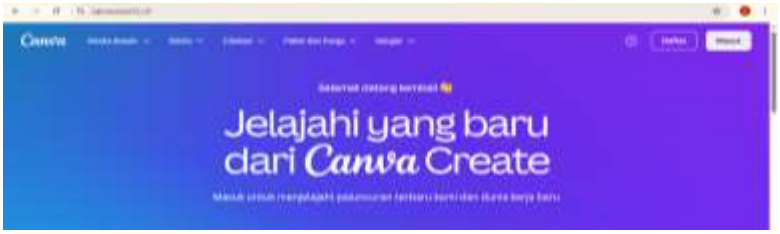

Figure 1. Canva Website Appearance

4.1.2 Template Selection According to Needs

After entering the dashboard, students can choose the type of template that suits the task, such as infographics, posters, presentations, or digital reports. This selection is adjusted to the form of solution they will display in the final stage of PBL.

Figure 2. Canva Design Creation View

4.1.3 Determining Content Structure

Before designing, students compile ideas or main points of the solutions they have formulated previously. This content structure is the basis for compiling visualizations so that information is conveyed logically and clearly.

4.1.4 Designing Visuals in Canva

Students begin to insert text, images, icons, diagrams, or graphics that support their content. Canva provides a variety of visual elements that can be accessed for free or for a fee. At this stage, teachers can direct students to pay attention to simple design principles such as color balance, font readability, and layout consistency.

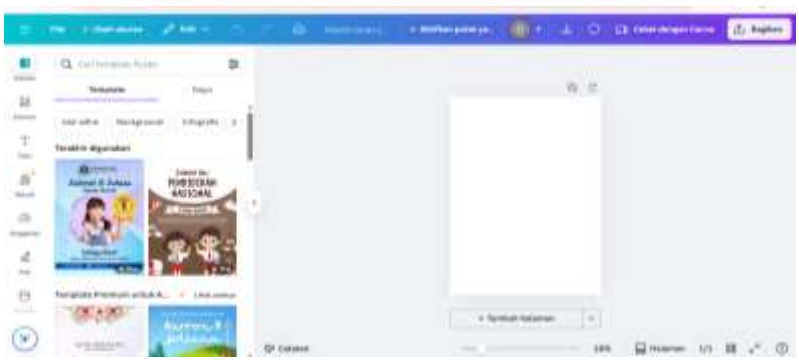

Figure 3. Visual Canva

4.1.5 Collaboration and Revision

Canva also offers online collaboration. Students working in groups can work on designs together, provide comments, and revise designs based on peer or teacher feedback. This stage strengthens teamwork and self-evaluation skills.

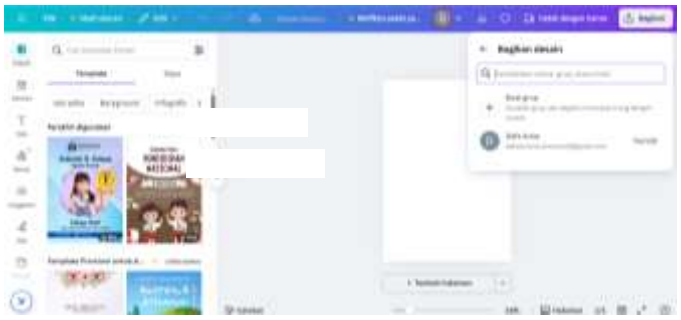

Figure 4. Canva Collaboration View

4.1.6 Saving and Sharing Work

Once completed, the design results can be downloaded in various formats such as PNG, JPG, or PDF. Students can also share them directly via a link to present in front of the class or upload to a digital learning platform.

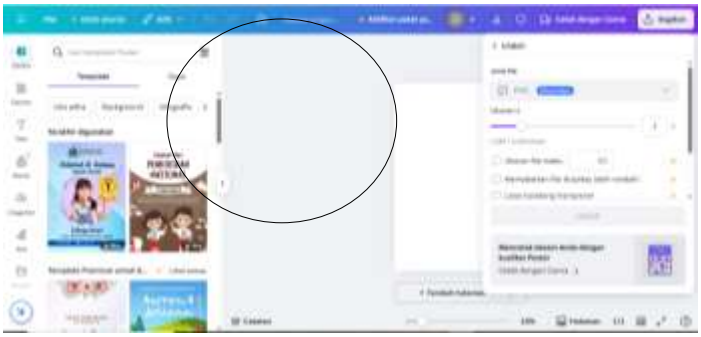

Figure 5. Download view in Canva

4.1.7 Presentation of Solutions and Reflection

The work that has been created using Canva is used as a media for presenting problem solutions. Students explain their visual content in front of the class, while also reflecting on the learning process, both in terms of content and media use.

4.1.8 Advantages and Disadvantages of Using Canva in the PBL Model

The use of Canva in problem-based learning (PBL) has a significant impact in supporting the solution visualization process. However, like other media, Canva also has advantages and disadvantages that need to be considered in its implementation in the classroom.

Excess

- There are many illustrative design features, templates and interesting animations
- Have more efficient time in creating learning media because of practical features
- Accessible anywhere, one of which is via a device
- Canva enables collaboration between teachers and students
- Media can be downloaded in different storage formats, such as PDF and JPG.

Lack

- Limited access to technology
- Lack of early digital literacy
- The tendency to focus on aesthetics rather than content

- Free feature limitations

Implementation of Canva-Assisted Problem-Based Learning Model in Science Learning

Planning Stages

The following is a table of the stages of implementation activities for the Problem-Based Learning (PBL) Model assisted by Canva in Class V Science learning which is arranged systematically and in accordance with the PBL approach:

Table 1. Planning Stages of Canva-Assisted PBL Implementation

Stage	Activity	Information
Planning	• Developing PBL-based learning plans • Formulate contextual problems according to science and natural sciences material • Analyzing CP and ATP • Designing LKPD and media • Setting up a Canva account and template	• Teachers prepare problem scenarios that stimulate critical thinking. • CP and ATP are analyzed to design the learning objective flow- Canva templates are prepared to facilitate student visualization
Problem Orientation	• The teacher explains social science problems that are contextual and relevant to everyday life • The teacher gives provocative questions to build students' curiosity.	• Problems are conveyed in the form of visual stories or impressions • Questions are designed to stimulate student exploration and discussion.
Data collection	• Students search for information from books, the internet, and simple observations. • Students begin discussing initial ideas and temporary solutions in groups.	• Teachers facilitate students in accessing learning resources • Students actively ask questions, record important information, and begin to organize data.
Analysis and Synthesis	• Students analyze the data found to develop solutions. • Students start designing the solution display in the form of infographics/posters/interactives in Canva	• Canva is used to creatively visualize student understanding. • Students work together to develop solutions based on the data collected.
Presentation and Discussion	• Students present their solution results using Canva in front of the class.	• Presentations can be done digitally or printed. • Discussions encourage communication skills,

Stage	Activity	Information
	• Teachers and friends provide feedback and input on the presentation results.	problem solving, and reflective thinking.
Reflection and Evaluation	• Students reflect on the learning process and outcomes • Teachers provide feedback and evaluation based on assessment rubrics.	• Reflection is done in writing/verbally • Evaluation includes cognitive, affective, and skill aspects of students in solving problems and delivering solutions.

Implementation Stage

This stage is an action process where problem-based learning is applied through a collaborative and digital approach. The steps are as follows:

A. Introduction (10 minutes)

- The teacher greets the students and opens the lesson with a prayer.
- The teacher raises provocative questions such as:
  "What environmental problems do you often see around your home or school?"
- The teacher explains the learning objectives and explains that they will create solutions to the problems in visual form using Canva.

Core Activities (70 minutes)

Exploration (20 minutes)

- Students observe the school environment or read materials related to environmental issues.
- Teachers share digital reading materials, videos, and trusted links.
- Students discuss in small groups to choose one environmental problem to analyze.

Elaboration (30 minutes)

- Students start creating **digital products** using Canva, such as:
- Infographic titled "Solutions to Reduce Plastic Waste"
- Environmental protection campaign poster
- Presentation slides on climate change
- The teacher accompanies and provides feedback on the content and appearance of the design.

Confirmation (20 minutes)

- Each group presents their design results in front of the class.
- Friends provide input and teachers provide reinforcement of the material content and appreciation for their visual creativity.

Closing (10 minutes)

- The teacher invites reflection on the learning process and the importance of protecting the environment.

- Students fill out feedback sheets about their experiences using Canva and working in teams.
- Teachers provide motivation so that students continue to think creatively and responsibly towards the environment.

Evaluation Stage

Evaluation of Student Learning Outcomes

Table 2. Evaluation of Student Learning Outcomes

Aspect	Technique	Instrument
Attitude	Observation	Team participation and cooperation checklist
Knowledge	Q&A, quiz	Oral questions and short answers
Skills	Product Rating	Canva design assessment rubric (content, aesthetics, solution)

Teacher Reflection

- Analyzing the effectiveness of using Canva in learning.
- Identifying successes and obstacles in implementing PBL.
- Develop an improvement plan for the next meeting.

Feedback from Students

- Students are asked to fill out a short questionnaire or have a light discussion about:
- What did they like most about this learning session?
- What are their difficulties when using Canva?
- Does visual media help them understand the material better?

With this approach, the implementation of Canva-assisted PBL not only improves visual literacy, but also develops digital communication and students' learning motivation actively and contextually in class V science learning.

5. Conclusions

In science learning with the Problem-Based Learning (PBL) approach, the teacher acts as a facilitator who guides students to solve contextual problems collaboratively and creatively. This model is very relevant to improve students' critical thinking skills, problem solving, and communication skills. The PBL stages which include problem orientation, data collection, analysis, presentation, and reflection encourage students to be actively involved in the learning process.

Collaboration with Canva's interactive media in the process of compiling solutions (products) provides space for students to express their understanding visually, attractively, and innovatively. This has an impact on increasing students' interest in learning, involvement, and motivation, especially in conveying ideas creatively and communicatively. The implementation of the Canva-assisted PBL model has proven effective in helping students understand science material in depth and fostering a spirit of meaningful project-based learning .

However, there are several obstacles in its implementation. Some students experience limited devices and internet access that hinder the optimal learning process. In addition, students' abilities in using technology, especially the Canva application, also vary. This is a challenge in itself in equalizing understanding and technical skills among students. In addition, the learning time available in class is often limited to complete all stages of the Problem-Based

Learning model ideally, especially when students have to compile the final product in visual form through Canva.

To overcome these various obstacles, several solutions can be implemented. Teachers can provide special time at the beginning of the lesson for light training on using Canva so that students are more technically prepared. The presentation schedule also needs to be done efficiently so that each group or individual has the same opportunity to display their work without disrupting other lesson times. For students who have difficulty accessing devices or the internet, teachers can provide alternative tasks in offline form, such as making manual posters that are still in line with learning objectives.

With an adaptive approach and careful planning, the implementation of the Problem-Based Learning model assisted by Canva can still be an innovative and effective strategy in improving visual literacy, digital communication, and learning motivation of fifth grade students.

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