



Enhancing Divergent Thinking Skills through Video Assisted Problem Based Learning in Islamic Cultural History at Junior High School

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ABSTRACT

This study examines the effectiveness of video assisted Problem Based Learning (PBL) in improving students' divergent thinking skills in Islamic Religious Education (IRE) subject, focusing on Islamic Cultural History at Junior High School 4 Batusangkar. Traditional PBL often struggles to engage students in exploring diverse perspectives and problem sources, which limits their ability to generate various, original, and flexible ideas regarding historical Islamic events. If not addressed, students may find it difficult to develop critical and creative solutions. To overcome this, the research introduces a video-assisted PBL model designed to support divergent thinking. The study uses a quantitative, quasi-experimental method involving 126 seventh-grade students divided into experimental and control groups. Data collection involved pretests, posttests, observation, and documentation. Analyses included normality and homogeneity tests, paired sample t-tests, independent sample t-tests, and N-Gain analysis using SPSS 26. The paired sample t-test showed a significance of $0.00 < 0.05$, indicating an improvement in divergent thinking. The independent sample t-test resulted in a significance of $0.017 < 0.05$, showing a significant difference between groups, while the N-Gain score was 0.75. This study contributes to SKI education by showing that the use of video within PBL can provide a practical approach to strengthening students' fluency, flexibility, originality, and elaboration. It also broadens the role of PBL in Islamic Cultural History learning by moving beyond content understanding and creating learning experiences that encourage students to develop divergent thinking through active, contextual, and collaborative activities.

Keywords: Divergent Thinking Skill; Video Assisted Problem Based Learning; Islamic Cultural History;

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1. Introduction

The Problem Based Learning (PBL) model is closely related to the development of divergent thinking, as this approach positions students as active problem solvers rather than passive recipients of information. In seeking solutions to real-world problems, students are encouraged to generate various possible answers, compare alternatives, and evaluate the strengths and weaknesses of each idea (Gupta et al., 2025). Such open-ended learning situations, which do not lead to just one correct answer, make students more willing to experiment intellectually, view issues from multiple perspectives, and connect personal experiences to Islamic Cultural History material (Alimasdar & Maksum, 2025). Thus, PBL creates an exploratory experience that fosters the growth of divergent thinking. Despite its effectiveness in encouraging critical thinking, implementing PBL in Islamic Cultural History has several weaknesses (Sudi & Adju, 2025). Teachers often struggle to find authentic, relevant, and sufficiently challenging problems because much of

Islamic Cultural History material consists of narrative and chronological historical facts, making it difficult to construct meaningful, contextual problems (Westberg, 2025). The Islamic Cultural History focus on past events, figures, and civilization development also means teachers must work hard to transform content into engaging, experience-based problem scenarios (Malasari & Sukarno, 2026). Sometimes the problem themes are too broad or not detailed, limiting students' opportunity for deep exploration, which can reduce the effectiveness of PBL in fostering divergent thinking (Ustafidah & Jaelani, 2025). The table below contextualizes the weakness of divergent thinking in Islamic Cultural History learning.

The lack of divergent thinking in Islamic Cultural History is not merely a methodological issue (Al-Shuqairat & Aldajah, 2025), but a threat to the intellectual development of the next Muslim generation. Research by Vera Anggitasari, Wiwi Isnaeni, and Sri Mulyani Endang Susilowati shows that divergent thinking strategies significantly increase student creativity, contributing 21.9% to its improvement (Vera, 2022). Therefore, this study critically examines the root causes of weak divergent thinking in Islamic Cultural History at the junior high school level, highlighting misconceptions about PBL (Hushin et al., 2025). The urgency of this research lies in efforts to shift Islamic Cultural History learning from passive memorization towards contextual historical analysis, preparing students to be not only spiritually intelligent but also creative, critical, and adaptive for building a relevant Islamic civilization in the future (Yahya et al., 2026).

The main problem lies in Islamic Cultural History learning activities that are dominated by convergent thinking (Sulaswari et al., 2026). Ideally, Islamic Cultural History should serve as a platform for developing historical awareness and higher-order thinking skills. In practice, however, Islamic Cultural History is still trapped in convergent patterns, focusing on memorization, single right answers, and linear reasoning (Rizki et al., 2025). Teachers tend to deliver content chronologically without inviting students to interpret or critique historical events. Limited learning resources, assessments focused on low-level cognition, and lectures reinforce one-way learning, preventing students from constructing meaning or seeing the relevance of history to real life. The command to think exists in the Qur'an through the concept of tafakkur: to study, analyze, and interpret various possibilities of natural phenomena, as in QS. Az-Zumar (39): 21 (Sun, 2025). This verse, interpreted by Quraisy Syihab in Tafsir Al-Mishbah, invites not only a description of nature but also an epistemological encouragement for humans to see beyond the visual (Khayati & Rahman, 2026). The phrase "Tidaklah engkau melihat" refers to contemplation engaging in a process of thinking that requires broad interpretation and layered meaning. While modern psychology defines divergent thinking as the generation of many ideas, cognitive flexibility, and novelty, the verse emphasizes seeing God's creation as signs. This provides a philosophical foundation for divergent thinking, though it is not identical to the purely cognitive modern framework. Weak divergent thinking among students is a global phenomenon known as "The Creativity Crisis." Research shows a significant decline in students' creative thinking abilities since the 1990s, especially in elementary schools (Fauzi et al., 2025). In Indonesia, studies confirm that students tend to be weak in fluency and originality due to an education system focused on standardized testing and single answers (Rabbani et al., 2025).

The relationship between Islamic Religious Education learning needs and divergent thinking development through video lies in its ability to present historical sources from multiple perspectives. By combining visuals, narrative texts, character illustrations, maps, and infographics, teachers can show history not only from one storyline but from social, political, cultural, and geographical viewpoints. Alternative narratives and critical questions in videos encourage students to interpret historical events diversely. The flexibility to adjust visual flow, add references, and insert historical quotes makes educational videos a space for constructing meaning, not just audiovisual media. According to Mulyasa, PBL is a learning method that focuses students on complex problems through investigation, enabling collaborative understanding. Daryanto and Raharjo (2012:162) state that PBL uses problems as a starting point for gathering and integrating new knowledge through real experiences. Thomas (Mujiburrahman, Muhamad Suhardi, 2022) adds that PBL involves students in complex, challenging question-based tasks, encouraging them to design solutions, make decisions, investigate, and solve problems (Needs & Solutions, 2026). Thus,

PBL is not just about knowledge transfer, but about applying knowledge in real-life, complex contexts (Al-Thani & Ahmad, 2025).

The researcher uses instructional videos to support PBL. Video selection is based on the Cognitive Theory of Multimedia Learning. Through video, abstract historical narratives become more concrete and contextual, helping students understand event sequences and their social backgrounds (Candan Şimşek et al., 2026). In the initial PBL phase, videos act as problem triggers that capture students' attention and stimulate imagination, fostering curiosity and cognitive readiness to explore and solve problems collaboratively (Sapovadia & Patel, 2025). The researcher believes that combining PBL and video can enhance students' divergent thinking in SKI. Projects that require students to explore historical events, analyze figures, or relate historical values to current life train students in fluency, flexibility, originality, and elaboration (Khairunnisa, 2026).

PBL is rooted in constructivist theory by Jean Piaget, reinforced by Lev Vygotsky (Nkosi et al., 2026). Piaget argued that knowledge is actively built by students through interaction with their environment, while Vygotsky emphasized social and cultural interaction via the Zone of Proximal Development (ZPD) (Hamidalloh et al., 2026). John Dewey's experiential learning theory also supports that meaningful learning occurs when students are directly involved in real experiences (Melkies, 2026). Thus, PBL allows students not only to receive information but to design and explore in real contexts, deepening understanding, increasing critical thinking, and strengthening problem-solving skills. This concept affirms that PBL emphasizes not just cognitive knowledge, but also life skills (Andayani & Gunawan, 2025). For example, in SKI, teachers can assign projects such as posters, timelines, or digital presentations on the spread of Islam during the era of the Rightly Guided Caliphs. Through these projects, students don't just learn historical facts but practice organizing and presenting information in real products (Cahyanto, 2025). This aligns with Piaget's constructivist theory that knowledge is actively constructed through experience and Vygotsky's ZPD, which highlights the importance of guidance and collaboration (Eun, 2019).

Divergent thinking is the ability to produce multiple possible ideas, answers, or solutions triggered by one problem, forming the foundation for creativity and flexible thinking (Livieratos et al., 2026). In Islamic Cultural History, divergent thinking is a cognitive tool that allows students to develop alternative answers to open-ended historical questions (Ritonga et al., 2026). This encourages students not only to accept history as a series of single facts, but also to interpret events more broadly from varied perspectives. Thus, divergent thinking builds a multi-perspective, reflective, and contextual understanding of history, and strengthens the ability to connect historical events to social values, meanings, and implications. Divergent thinking is positioned as a representation of higher-order cognitive learning outcomes in SKI (Of et al., n.d.). Previously, Islamic Cultural History learning outcomes were measured by memory. This research shifts the definition to creative thinking skills. Low pre-test scores in fluency, flexibility, originality, and elaboration empirically demonstrate the low quality of current Islamic Cultural History learning outcomes, which this study seeks to improve with video-assisted PBL (Ardhyantama & Widodo, 2020).

Convergent and divergent thinking differ fundamentally in orientation and process. Convergent thinking is linear and logical, aiming for a single, predetermined answer and emphasizing factual mastery and information accuracy such as names, dates, and event sequences (Bledow et al., 2026). In contrast, divergent thinking focuses on imagination and cognitive flexibility, encouraging a variety of answers and ideas from a single problem (Arifin & Kuswanto, 2026). This process is non-linear and spontaneous, emphasizing the quantity and variety of ideas. Both types of thinking are important: convergent thinking helps build a systematic knowledge foundation, while divergent thinking is strategic for developing cognitive flexibility, originality, and adaptability for complex problems (Abdulla Alabbasi et al., 2026).

Divergent thinking is a crucial component of creativity, related to the capacity for answer variation (fluency), idea diversity (flexibility), rarity of ideas (originality), and idea development (elaboration) (Abduldayev & Kassymova, 2026). Cognitively, divergent thinking is about generating many possible solutions, in contrast to convergent thinking, which focuses on finding one correct answer (Saretzki et al.,

2025) . Teaching manuals state: “Divergent Thinking is the process of generating multiple ideas to maximize the range of possible solutions, applications, examples, etc.” (The University of Texas at Austin, 2019). J.P. Guilford first introduced divergent and convergent thinking in his Structure of Intellect theory, distinguishing between multiple possible responses and single correct responses. This concept underpins creativity research: “divergent production goes searching, changes routes and yields multiple answers” (Ferrer Obiol et al., 2025). The four main components for measuring divergent thinking are: Fluency (number of ideas), Flexibility (variety of idea categories), Originality (novelty of ideas), and Elaboration (detail and development of ideas) (Koutstaal et al., 2025).

Torrance expanded this with his Torrance Tests of Creative Thinking (TTCT), which operationalize divergent thinking through verbal and figural tasks, such as drawing, story completion, or offering multiple solutions (Mirza et al., n.d.). Torrance stressed that the quality, novelty, and meaningfulness of ideas are as important as quantity (Alabbasi et al., 2022). In education, divergent thinking is crucial for developing students’ creative potential, enabling them to formulate alternative solutions to real problems and face 21st-century challenges that demand innovation. Therefore, learning approaches like PBL are highly relevant, as they emphasize exploratory freedom and creative product creation (Widodo, 2020). Divergent thinking and PBL are closely linked; divergent thinking is a core skill in generating ideas, solutions, and alternatives for open-ended problems (Mursid & The, 2022).

2. Methods

This type of research is a quasi-experimental study. In this research, the researcher used one experimental group without a control group for comparison. The design employed is the One Group Pretest–Posttest Design, which is a research design where, before the treatment is given, a pretest is conducted to determine the students’ initial abilities (Abdi et al., 2025). Afterward, a treatment is applied in the form of the Problem Based Learning method assisted by video, which the researcher used in the Islamic Cultural History learning process (Harahap, 2025). After the treatment, a posttest is administered to determine changes or improvements in students’ divergent thinking skills (Inwanti & Setiawan, 2025). Through this design, the researcher can compare the pretest and posttest results to determine the effect on the improvement of students’ divergent thinking abilities (Supriyati, 2022) (Saini, 2025). If there is a significant improvement, it can be concluded that the treatment (video-assisted PBL) indeed influences students’ divergent thinking skills (Awaliah, 2025). To statistically prove this effect, the researcher used the paired sample t-test, which compares the pretest and posttest scores. The t-value is compared to the t-table or its p-value; if the p-value is less than 0.05, then the alternative hypothesis is accepted, indicating that the treatment has a significant effect on improving students’ divergent thinking skills (Alfarizi et al., 2025).

The population in this study consists of all students at SMPN 4 Batusangkar, Tanah Datar Regency, West Sumatra Province, in the 2025/2026 academic year. This population totals 126 students. The sampling technique used in this study is total sampling (census) (Asari et al., 2023). Total sampling is a form of probability sampling strategy (Firmansyah, 2022), in which all members of the population have an equal chance or opportunity to be randomly selected as samples. The conceptual framework for integrating PBL and video is expected to create an interactive learning environment and optimally stimulate the improvement of students’ divergent thinking skills. The conceptual framework is illustrated in the following diagram:

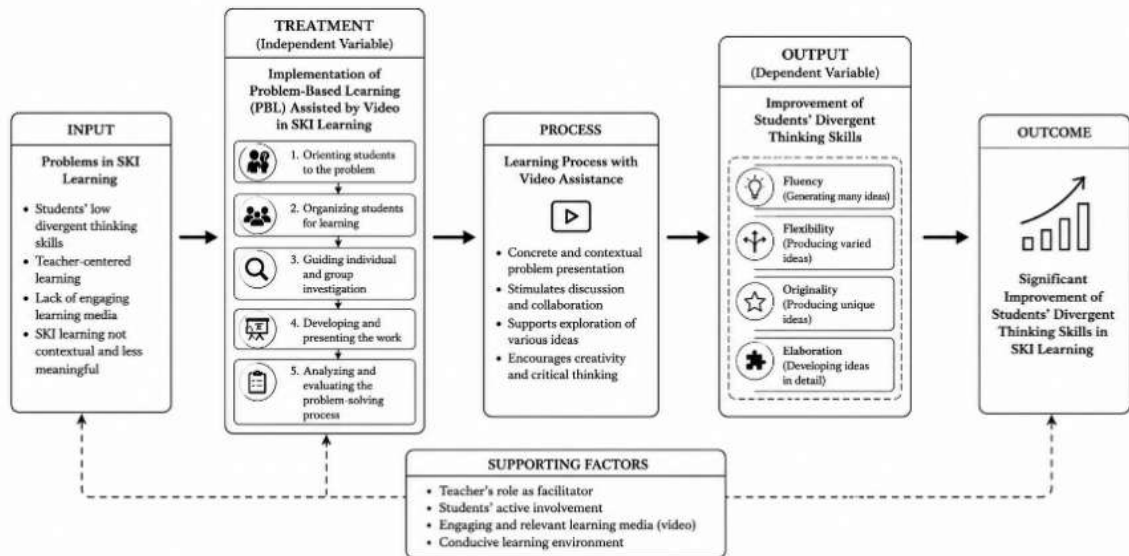


Image 4 Hipotetic Models

Image 4 Hipotetic Models

3. Results and Discussion

Result

1) Pretest and Posttest of Control Class Meeting 1

The frequency distribution of students' abilities in the Pretest and Posttest of the control class in meeting 1 is presented in the following table.

Table 1 Frequency Distribution of Control Class Meeting 1

Very Low	2	8.0	13	52.0
Low	6	24.0	11	44.0
Fair	6	24.0	1	4.0
High	5	20.0	0	0.0
Very High	6	24.0	0	0.0
Total	25	100.0	25	100.0

Based on the table above, it can be seen that in the pretest results of the control class meeting 1, the most dominant categories were Low, Fair, and Very High, each with 6 students (24.0%). Next, the High category was 5 students (20.0%), and the Very Low category was 2 students (8.0%). This indicates that before learning, students' understanding of the Abbasid Dynasty material was spread across all categories with relatively diverse proportions. Meanwhile, in the posttest results, the most dominant category was Very Low with 13 students (52.0%), followed by Low with 11 students (44.0%), while Fair was only 1 student (4.0%). There were no students in the High or Very High categories. These results show that after learning, students' understanding in the control class was dominated by the Very Low category. The frequency distribution can also be seen in the following bar chart.

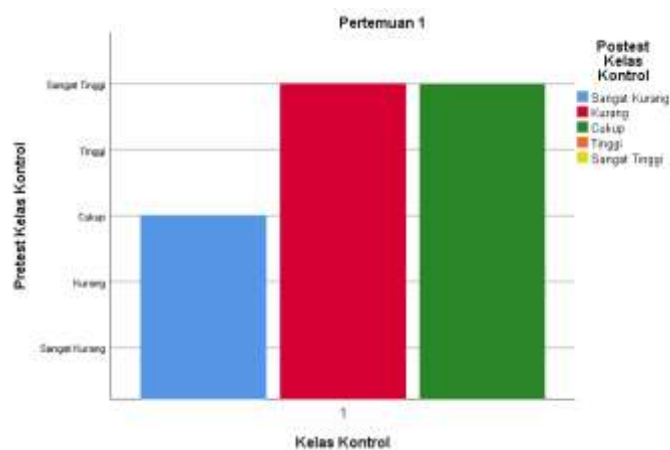


Figure 2 Pretest and Posttest Bar Chart of Control Class Meeting 1

2) Pretest and Posttest of Experimental Class Meeting 1

The frequency distribution of students' understanding of the Abbasid Dynasty material in the Pretest and Posttest of the experimental class meeting 1 is shown in the following table.

Table 2 Frequency Distribution of Experimental Class Meeting 1

Very Low	0	0.0	0	0.0
Low	8	32.0	3	12.0
Fair	7	28.0	8	32.0
High	8	32.0	6	24.0
Very High	2	8.0	8	32.0
Total	25	100.0	25	100.0

From the table above, it is known that in the pretest results of the experimental class meeting 1, the most dominant categories were Low and High, each with 8 students (32.0%). Next, Fair was 7 students (28.0%) and Very High was 2 students (8.0%). There were no students in the Very Low category. This indicates that before learning, students' understanding was mostly in the Low to High category. Meanwhile, in the posttest results, the most dominant categories were Fair and Very High, each with 8 students (32.0%), followed by High with 6 students (24.0%) and Low with 3 students (12.0%). There were no students in the Very Low category. The frequency distribution can be seen in the following bar chart.

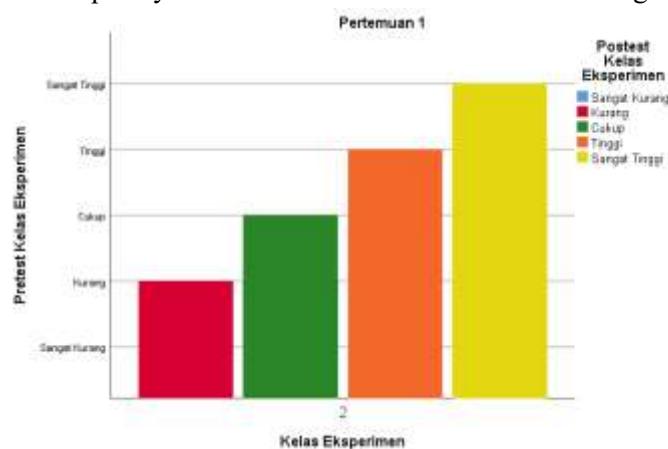


Figure 3 Pretest and Posttest Bar Chart of Experimental Class Meeting 1

3) Pretest and Posttest of Control Class Meeting 2

The frequency distribution for the control class in meeting 2 is as follows:

Table 3 Frequency Distribution of Control Class Meeting 2

Very Low	2	8.0	14	56.0
Low	6	24.0	8	32.0
Fair	6	24.0	3	12.0
High	5	20.0	0	0.0
Very High	6	24.0	0	0.0
Total	25	100.0	25	100.0

In the pretest results, the most dominant categories were Low, Fair, and Very High, each with 6 students (24.0%). High was 5 students (20.0%), and Very Low was 2 students (8.0%). After learning, in the posttest, Very Low became most dominant with 14 students (56.0%), followed by Low (32.0%) and Fair (12.0%). No students were in the High or Very High categories. The frequency distribution can be seen in the following bar chart.

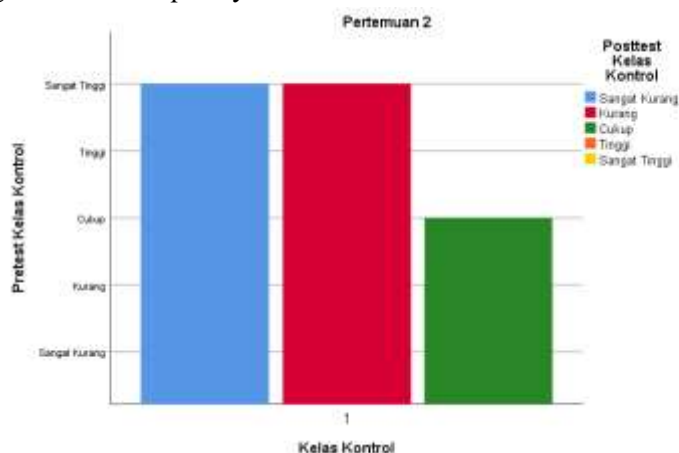


Figure 4 Pretest and Posttest Bar Chart of Control Class Meeting 2

4) Pretest and Posttest of Experimental Class Meeting 2

The frequency distribution of students' understanding in the experimental class meeting 2 is as follows:

Table 4 Frequency Distribution of Experimental Class Meeting 2

Very Low	0	0.0	0	0.0
Low	2	8.0	8	32.0
Fair	6	24.0	7	28.0
High	6	24.0	8	32.0
Very High	11	44.0	2	8.0
Total	25	100.0	25	100.0

Based on Table 4.8, the pretest of the experimental class meeting 2 showed Very High as the most frequent, 11 students (44.0%). Fair and High were 6 students each (24.0%), and Low was 2 students (8.0%). In the posttest, Low and High had the highest frequencies, 8 students each (32.0%). Fair was 7 students (28.0%), and Very High was 2 students (8.0%). No students were in the Very Low category. The frequency

distribution shows changes in each category before and after the intervention. This can be seen in the following bar chart.

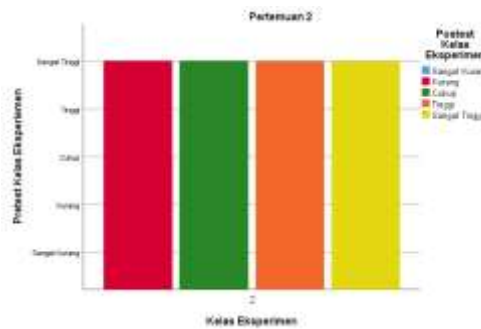


Figure 5 Pretest and Posttest Bar Chart of Experimental Class Meeting 2

In Figure 4.4, Very High is the most frequent in the pretest, while in the posttest, Low and High are the most frequent. This shows a shift in students' understanding distribution between the pretest and posttest.

- 5) Pretest and Posttest of Control Class Meeting 3 The frequency distribution for the control class in meeting 3 is as follows:

Table 5 Frequency Distribution of Control Class Meeting 3

Very Low	14	56.0	14	56.0
Low	7	28.0	11	44.0
Fair	4	16.0	0	0.0
High	0	0.0	0	0.0
Very High	0	0.0	0	0.0
Total	25	100.0	25	100.0

Table 4.9 shows the pretest of the control class in meeting 3 was dominated by Very Low (14 students, 56.0%), then Low (7 students, 28.0%), and Fair (4 students, 16.0%). No students were in High or Very High categories. In the posttest, Very Low was still the highest (14 students, 56.0%), followed by Low (11 students, 44.0%). No students were in Fair, High, or Very High categories. This indicates that after learning, students' understanding remained in the lower categories. The frequency distribution can be seen in the following bar chart.

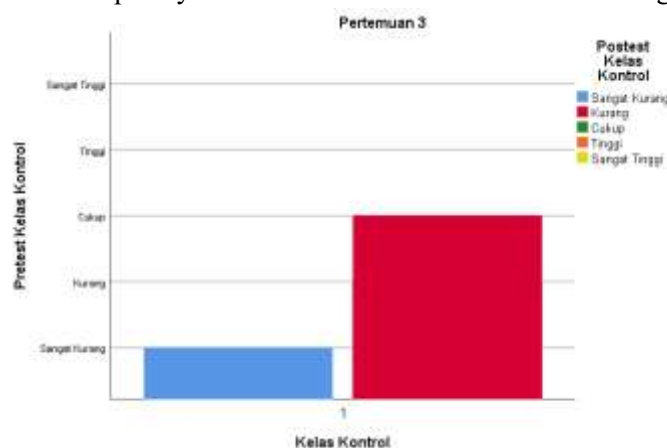


Figure 6 Pretest and Posttest Bar Chart of Control Class Meeting 3

- 6) Pretest and Posttest of Experimental Class Meeting 3 The frequency distribution for the experimental class in meeting 3 is as follows:

Table 6 Frequency Distribution of Experimental Class Meeting 3

Very Low	0	0.0	0	0.0
Low	1	4.0	0	0.0
Fair	7	28.0	8	32.0
High	7	28.0	7	28.0
Very High	10	40.0	10	40.0
Total	25	100.0	25	100.0

Table 4.10 shows the pretest of the experimental class in meeting 3 was dominated by Very High (10 students, 40.0%). Fair and High each had 7 students (28.0%), and Low was 1 student (4.0%). No students were in the Very Low category. In the posttest, Very High remained the most frequent (10 students, 40.0%), followed by Fair (8 students, 32.0%) and High (7 students, 28.0%). No students were in Very Low or Low categories. This shows that after learning, students' understanding was mostly in the Fair, High, and Very High categories. Compared to the pretest, in the posttest there were no students in the Low category, and the number in Fair increased from 7 to 8 students. This indicates that students' understanding in the experimental class tended to be in the better categories.

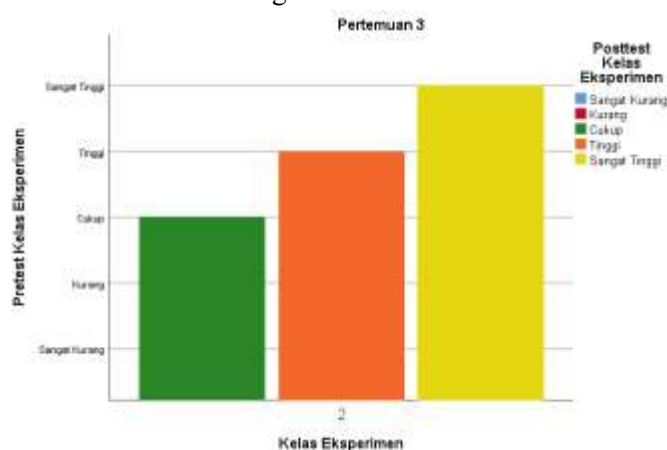


Figure 7 Pretest and Posttest Bar Chart of Experimental Class Meeting 3

- 7) Hypothesis Test Meeting 1

The hypothesis test was conducted using the Independent Sample t-test to determine the difference in divergent thinking ability between the control and experimental classes. The decision is based on the Sig. (-tailed) value. If the significance value is <0.05 , then H_0 is rejected, and H_1 is accepted.

Table 7 Results of Independent Sample t-test for Meeting 1

Pretest	-3.430	48	0.043	H_0 rejected
Posttest	-7.788	48	0.000	H_0 rejected

The results show that the significance values for the Pretest and Posttest are 0.043 and 0.000, respectively—both less than 0.05—so H_0 is rejected, and H_1 is accepted. Thus, there is a significant difference in divergent thinking ability between the control and experimental classes.

N-Gain Test Meeting 1. N-Gain analysis was conducted to determine the increase in divergent thinking ability after instruction. N-Gain categories: Low (<0.30), Medium ($0.30-0.70$), and High (>0.70).

Table 8 N-Gain Test Results for Meeting 1

Control	0.1893	25	0.07040	Low
Experimental	0.5506	25	0.10953	Medium

The results indicate the control class had a mean of 0.1893 (Low), while the experimental class had a mean of 0.5506 (Medium). This shows that the improvement in divergent thinking ability in the experimental class was greater than in the control class.

8) Hypothesis Test Meeting 2

The hypothesis test was conducted using the Independent Sample t-test to determine the difference in divergent thinking ability between the control and experimental classes in Meeting 2. The decision is based on the Sig. (2-tailed) value. If the significance value is <0.05 , then H_0 is rejected, and H_1 is accepted.

Table 9 Results of Independent Sample t-test for Meeting 2

Pretest Meeting 2	-3.430	48	0.019	H_0 Rejected	Significant difference
Posttest Meeting 2	-9.037	48	0.000	H_0 Rejected	Significant difference

The results show significance values for Pretest (0.019) and Posttest (0.000), both less than 0.05—thus, H_0 is rejected and H_1 is accepted. This shows a significant difference between the control and experimental classes in meeting 2. The larger difference in the Posttest results shows that after using the video-assisted PBL method, the experimental class achieved better divergent thinking ability than the control class.

9) N-Gain Test Meeting 2

N-Gain analysis was conducted to determine the increase in divergent thinking ability after learning in meeting 2. N-Gain value is based on the difference between Pretest and Posttest scores, normalized. N-Gain categories: Low (<0.30), Medium ($0.30-0.70$), and High (>0.70).

Table 10 N-Gain Test Results for Meeting 2

Control	0.1385	25	0.05007	Low
Experimental	0.5506	25	0.10953	Medium

The results indicate the control class had a mean of 0.1385 (Low), while the experimental class had a mean of 0.5506 (Medium). This shows that the increase in divergent thinking ability in the experimental class was higher than in the control class. Thus, the implementation of video-assisted PBL in meeting 2 was more effective than conventional learning.

10) Hypothesis Test Meeting 3

The hypothesis test was conducted using the Independent Sample t-test to determine the difference in divergent thinking ability between the control and experimental classes in meeting 3. The decision is based on the Sig. (2-tailed) value. If the significance value is <0.05 , then H_0 is rejected and H_1 is accepted.

Table 11 Results of Independent Sample t-test for Meeting 3

Pretest Meeting 3	-8.691	48	0.000	H_0 Rejected	Significant difference
Posttest Meeting 3	-12.461	48	0.000	H_0 Rejected	Significant difference

The results show significance values for Pretest and Posttest are both 0.000, so H_0 is rejected and H_1 is accepted. This shows a significant difference between the control and experimental classes in meeting 3. The larger difference in the Posttest ($t = -12.461$) shows that after using the video-assisted PBL method, the experimental class achieved better divergent thinking ability than the control class.

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11) N-Gain Test Meeting 3

N-Gain analysis was conducted to determine the increase in divergent thinking ability after learning in meeting 3. N-Gain value is based on the difference between Pretest and Posttest scores, normalized. N-Gain categories: Low (<0.30), Medium ($0.30-0.70$), and High (>0.70).

Table 12 N-Gain Test Results for Meeting 3

Control	0.2230	25	0.09043	Low
Experimental	0.7547	25	0.21341	High

The results indicate the control class had a mean of 0.2230 (Low), while the experimental class had a mean of 0.7547 (High). This shows that the increase in divergent thinking ability in the experimental class was higher than in the control class. Thus, the implementation of video-assisted PBL in meeting 3 was more effective than conventional learning.

Discussion

The improvement in divergent thinking skills occurred because the stages in the Problem Based Learning (PBL) method provide students with opportunities to be directly involved in the problem-solving process. In its implementation, students are given problems related to Islamic Cultural History material and are then guided to identify problems, seek information, participate in group discussions, formulate alternative solutions, and present their ideas. These activities support the development of divergent thinking indicators: fluency (the ability to generate many ideas), flexibility (the ability to see problems from various perspectives), originality (the ability to produce new ideas), and elaboration (the ability to develop ideas in detail). These findings align with research by Nuha and Normaida (2023), which states that applying PBL in Islamic Education encourages students to think innovatively, creatively, and contextually (Nurjannah et al., 2025). Authentic problem presentation in Islamic Education not only helps students understand concepts but also enables them to develop alternative solutions through group discussions. This supports the results of the current study, as students in Islamic Cultural History lessons were actively involved in analyzing historical problems and presenting solutions based on group discussions, not just receiving information from the teacher (Qoyimah & Hamami, 2025).

The study also shows that implementing video-assisted PBL significantly affects students' divergent thinking skills in IRE. This is evident from higher average posttest scores in the experimental class compared to the control class, as well as a shift in students' ability categories from low to high and very high at each meeting. This demonstrates that problem-based learning gives students opportunities to generate alternative answers, think flexibly, and express original ideas. These results are consistent with M. Karim's (2023) systematic literature review and meta-analysis, which found that PBL has a very high effect size (1.05) on improving students' critical thinking skills in Islamic Education. Karim explains that problem-based learning provides a contextual learning experience, encouraging students to analyze, evaluate, and solve problems independently (Abduldayev et al., 2026). This supports the present study, as IRE students were trained to identify historical problems, discuss, seek information, and propose alternative solutions activities that develop fluency, flexibility, originality, and elaboration (Mujiburrahman et al., 2022).

Saputra and Ramdhan (2025) also support these findings, noting that PBL in Islamic Education creates a more contextual, active, and student-centered learning environment. They argue that PBL syntax allows

students to develop Higher Order Thinking Skills (HOTS) through problem identification, information gathering, discussion, and drawing conclusions. While Saputra and Ramdhan's study is a literature review, this study is experimental and specifically examines the effect of video-assisted PBL on divergent thinking in Islamic Cultural History (Firmansyah, 2022). The successful application of PBL in this research is also supported by using video as an initial learning stimulus. Videos help students understand material more concretely, as they can visualize events, figures, and historical contexts related to the given problems. This is consistent with Lefriza Yati and Miftahur Rahmah's (2023) research, which found that integrating visual media with PBL syntax improves the quality of Islamic Education learning by making it more interesting, contextual, and easier to understand. Video usage makes students more focused and helps them grasp abstract concepts (Lies Ning Ujianti & Muh. Hanif, 2025).

This is similar to the current research, where instructional videos in Islamic Cultural History serve as initial stimuli before problem identification and group discussion (Masrukin, 2025). This, video media not only aids content delivery but also builds students' curiosity, encouraging them to generate a variety of answers during learning. Instructional videos in Islamic Cultural History do not only serve as information media but also as stimuli that help students comprehend problems before discussion. Videos give a clearer depiction of historical events, making it easier for students to develop ideas, voice opinions, and search for solutions. These findings are also in line with the research of Tri Wulandari et al. (2023), who concluded that PBL with animated media positively influences students' interest and learning outcomes (Sa'adah et al., 2025). They found that engaging media makes students more active and involved in the problem-solving process. Similarly, in this study, videos about Islamic history increased student enthusiasm for discussion and idea generation, improving divergent thinking skills in each lesson (Wisda et al., 2026).

Presenting videos before problem-solving activities helps students better understand the context, making discussions more effective. Videos about Islamic historical events help students grasp the chronology, figures, and values within the material, enabling them to generate various solutions (Putra & Khairani, 2023). This research also corresponds with Azahrah, Khaeroni, and Rachmiati (2024), who found that video-based PBL positively impacts the development of higher-order thinking in elementary students. Interactive videos make learning more engaging, prompting students to ask questions, discuss, and express opinions (Suroya & Dwijayanti, 2026). Although their research focuses on critical thinking, the results are relevant because divergent thinking also develops through problem analysis, information synthesis, and generating multiple solutions (Honra, 2025). Video media thus strengthens PBL's effectiveness in improving learning quality (Azahrah et al., 2025) (Choirudin et al., 2025).

Overall, this research and previous studies reveal that the success of video-assisted PBL is not only due to its learning stages but also the use of supportive media. In this study, video made Islamic Cultural History more concrete and interesting, while PBL syntax provided opportunities for students to develop thinking skills through problem orientation, investigation, discussion, presentation, and evaluation. Therefore, video-assisted PBL in Islamic Education at Junior High School 4 Batusangkar creates active, contextual, and student-centered learning. It effectively enhances students' divergent thinking skills by encouraging idea generation, flexible perspectives, original ideas, and solution development. Video-assisted PBL can thus be considered an alternative method to improve the quality of Islamic Education. According to the researcher, these findings further reinforce previous research stating that the success of PBL depends not only on its syntax but also on the media used. In this study, instructional videos made Islamic Cultural History more concrete by visually illustrating figures, events, and historical backgrounds, helping students grasp the context before group discussions. The stages of PBL problem orientation, investigation, discussion, presentation, and evaluation enable students to develop fluency, flexibility, originality, and elaboration. Hence, video-assisted PBL is a worthy alternative for Islamic Religious Education lessons, as it significantly improves students' divergent thinking skills.

4. Conclusion

Nevertheless, this study has several limitations that should be considered when interpreting the findings. The research was conducted in only one junior high school with a relatively limited sample and a short intervention period, which may limit the generalizability of the findings to students in different educational and contextual settings. In addition, significant differences were found between the experimental and control groups in some pretest measurements, indicating that the groups were not completely equivalent in their initial abilities; therefore, differences in posttest performance should be interpreted cautiously because they may have been partly influenced by differences in students' initial abilities. Furthermore, because the intervention combined Problem Based Learning with instructional video, this study could not determine the separate contribution of the PBL model and the video media to the improvement of divergent thinking. Therefore, future researchers are encouraged to involve larger and more diverse samples from multiple schools, use stronger procedures to ensure comparable initial abilities between groups, apply appropriate statistical controls when necessary, extend the intervention period, and include follow-up assessments to examine the sustainability of the improvement. Future studies are also recommended to compare PBL with and without video support and to provide more comprehensive evidence of the validity and reliability of instruments used to measure fluency, flexibility, originality, and elaboration.

The implementation of the video-assisted Problem Based Learning (PBL) model has been shown to improve students' divergent thinking abilities. Through the presentation of videos and problem-solving activities related to the Abbasid Dynasty material, students became more active in identifying problems, proposing various alternative solutions, engaging in discussions, and presenting the results of their thinking. Student-centered learning provides opportunities to develop fluency, flexibility, originality, and the ability to elaborate on ideas, thus increasing divergent thinking skills compared to before the intervention. Based on the results of statistical analysis in hypothesis testing, there is a significant difference between the divergent thinking abilities of students who learned using the video-assisted PBL model and those who learned through conventional methods. The results of the independent-samples t-test showed a significance value of 0.017, which is less than 0.05, so H_0 is rejected, and H_a is accepted. Thus, the video-assisted PBL model has been proven effective in enhancing students' divergent thinking skills in the Islamic Cultural History subject on the Abbasid Dynasty material for seventh-grade students at Junior High School 4 Batusangkar. This model is suitable as an alternative learning approach because it creates an active, collaborative, and meaningful learning environment that encourages students to think creatively in solving various problems.

5. References

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