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The Effect of Picture Story Learning Media on the Reading Comprehension Ability of Third-Grade Students at MIN 12 Medan

Rili Ritami Sipahutar ✉, UIN Sumatera Utara Medan, Indonesia
Faridah, UIN Sumatera Utara Medan, Indonesia
Aufa, UIN Sumatera Utara Medan, Indonesia

✉ *rilirtmisipahutar8@gmail.com*

Abstract: This study aims to determine the effect of picture story learning media on the reading comprehension ability of third-grade students at MIN 12 Medan. A quantitative approach with a quasi-experimental method and a Pretest-Posttest Control Group Design was employed. The sample consisted of 52 students, divided into an experimental group (26 students) and a control group (26 students). Data were collected through a reading comprehension test evaluating students' ability to comprehend text content, identify essential information, understand word meanings, draw conclusions, and retell the story. Data were analyzed using descriptive statistics, Shapiro-Wilk normality test, Levene's homogeneity test, Independent Samples t-Test, and N-Gain score analysis. The results indicated that the mean score of the experimental group increased from 56.538 on the pretest to 82.885 on the posttest, representing an increase of 26.347 points. Meanwhile, the control group increased from 57.500 to 72.308, marking an increase of 14.808 points. The average N-Gain for the experimental group was 0.6176, whereas the control group scored 0.3592. The Independent Samples t-Test on N-Gain revealed a significance value of $p < 0.001$, which is less than $\alpha = 0.05$, indicating a statistically significant difference in reading comprehension improvement between the two groups. Therefore, picture story learning media can be utilized as an effective instructional alternative to enhance third-grade students' reading comprehension through the integration of verbal and visual information.

Keywords: Picture story media; reading comprehension; madrasah ibtidaiyah; quasi-experiment.

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INTRODUCTION

Reading literacy is a fundamental aspect of education, as reading proficiency extends beyond recognizing symbols and words to comprehending, applying, evaluating, and reflecting upon written information. This ability serves as a foundation for students to acquire knowledge, develop cognitive skills, and engage effectively in learning across various academic subjects. Within the context of Indonesian education, reading literacy remains a major concern because students' reading performance has not reached an optimal level. According to the 2022 Programme for International Student Assessment (PISA) results, Indonesian students achieved an average reading score of 359, which is significantly lower than the OECD average. Furthermore, only approximately 25% of Indonesian students reached Level 2 or higher in reading proficiency—a benchmark requiring students to identify main ideas and locate information based on specific criteria

(OECD, 2023). This condition highlights the necessity for continuous reinforcement of reading literacy from the primary education level to provide students with a solid foundation for comprehending diverse forms of written text.

At the elementary school and *madrasah ibtidaiyah* (Islamic primary school) levels, reading comprehension is an aspect of literacy that demands specialized attention. Reading comprehension is a cognitive process requiring students not only to decode words and sentences but also to construct a holistic understanding of the text's meaning. Throughout this process, students must identify main ideas, retrieve key information, understand relationships between concepts, infer implicit meanings, and draw appropriate conclusions. Reading comprehension plays a crucial role in academic activities, as nearly all learning tasks involve interpreting written information—whether through textbooks, instructional tasks, assessment items, or other learning resources. Students with strong reading comprehension skills process information more effectively and integrate it with their prior knowledge. Consequently, reading instruction at the primary level should focus not merely on decoding fluency, but primarily on text comprehension and interpretation skills.

The development of reading comprehension ability is closely tied to the instructional strategies and learning media employed in the classroom. Teacher-centered instruction relying heavily on lectures and conventional text presentation can render reading activities monotonous and unengaging for primary school students. Given that primary-grade learners require concrete, visual, and engaging learning experiences, teachers are challenged to select media that facilitate easier text processing. Instructional media integrating verbal and visual elements offer a viable alternative, as information is presented textually and reinforced through relevant illustrations. Such media assist students in establishing connections between written text and visual representations, thereby making abstract narrative concepts more concrete. Therefore, selecting learning media aligned with students' developmental characteristics is a critical factor in teaching reading comprehension.

One learning medium possessing these characteristics is the picture story. Picture story media combine narrative text with contextual illustrations, enabling students to process information through dual representations that reinforce comprehension. Story illustrations assist learners in identifying characters, settings, events, and sequential relationships within the narrative. Simultaneously, the text provides verbal input necessary for developing textual understanding. This combination creates a more concrete and engaging reading experience compared to unillustrated texts. In primary education, picture stories also enable teachers to facilitate interactive reading activities where students actively observe, interpret, and correlate textual information with corresponding visual cues.

Prior studies demonstrate a positive correlation between illustrated media and the development of students' reading comprehension. Gunawan and Suhardi (2019) indicated that thematic-integrative picture books improved primary school students' reading comprehension, evidenced by a mean pretest-to-posttest score increase from 72.11 to 81.63. These findings suggest that visually supported text presentation assists students in building mental models of written content. Similarly, research by Andini et al. (2024) on third-grade students at SD Inpres Laloasa revealed a significant effect of picture story media on reading comprehension skills (p = 0.011). These findings further support the premise that picture stories serve as effective instructional tools for facilitating reading comprehension, particularly in primary education.

Beyond its impact on comprehension skills, picture story media also contribute to fostering reading interest and literacy culture in schools. Pascasarjana (2023), through a review of studies on picture storybooks, emphasized their utility in supporting school literacy movements at the primary level. Winarni (2025) investigated the implementation of picture story media among third-grade students and observed that it successfully captured student attention, increased reading motivation, and improved text

comprehension. Furthermore, a literature review by Putri et al. (2025) concluded that picture storybooks enhance reading interest while simultaneously supporting textual understanding and cognitive skill development. Collectively, these findings indicate that integrating text and illustrations holds pedagogical potential for creating engaging reading experiences while promoting reading comprehension.

Despite extensive research on illustrated media in reading instruction, empirical gaps remain regarding specific learner contexts, grade levels, media characteristics, and experimental designs. For instance, Gunawan and Suhardi (2019) evaluated thematic-integrative picture books with fourth-grade students, whereas Andini et al. (2024) focused on third-grade elementary students. Widiyasari et al. (2025) centered on Canva-based picture storybook development for second-graders, while Winarni (2025) employed a qualitative approach to describe implementation strategies in third-grade classrooms. These variations highlight the need to examine picture story media specifically within the *madrasah ibtidaiyah* context using measurable experimental designs. Thus, conducting an empirical study with third-grade *madrasah ibtidaiyah* students is necessary to broaden the evidence base regarding picture story media in reading comprehension instruction.

Driven by these considerations, this study investigates the effect of picture story media on the reading comprehension ability of third-grade students at MIN 12 Medan. The study focuses on assessing improvements in students' reading comprehension across specific competencies, including identifying main ideas, retrieving key details, inferring implicit information, drawing conclusions, and relating textual content to visual illustrations. Utilizing a quasi-experimental Pretest-Posttest Control Group Design, the study involved 52 students divided into an experimental group (n = 26) and a control group (n = 26). Data collected via pretest and posttest measures were analyzed using Independent Samples t-Tests and N-Gain score calculations. Through this methodological design, the study provides empirical evidence regarding changes in reading comprehension following picture story media intervention compared to conventional instruction. In addition to contributing to literacy research in *madrasah ibtidaiyah* settings, the findings aim to assist educators in selecting appropriate learning media tailored to student developmental characteristics and reading instruction goals.

METHODS

This study employed a quantitative approach with a quasi-experimental design. A quantitative approach was adopted because the research aimed to gather numerical data for statistical analysis to determine the effect of picture story learning media on students' reading comprehension ability. A quasi-experimental method was chosen because the subjects belonged to naturally formed, intact classroom units, preventing full individual randomization. The specific research design utilized was the Pretest-Posttest Control Group Design involving an experimental group and a control group. Both groups administered a pretest to establish baseline reading comprehension. Subsequently, the experimental group received instruction using picture story media, while the control group received conventional instruction without picture story media. Following the intervention, a posttest was administered to both groups to measure changes in reading comprehension ability (Sugiyono, 2022; Creswell & Creswell, 2018).

The research was conducted at MIN 12 Medan during the even semester of the 2026/2027 academic year. The target population consisted of all third-grade students, totaling 156 students. The sample was selected using a purposive sampling technique based on specific criteria aligned with the research objectives. Criteria included homogeneous academic performance, comparable class size, identical curriculum coverage, and similar baseline instructional conditions. Based on these considerations, a sample of 52 students was selected, comprising 26 students from Class III-A as the control group and 26 students from Class III-B as the experimental group. The experimental group received reading instruction supported by picture story media, whereas the control group

was taught using standard conventional strategies typically implemented by the classroom teacher. Selecting classes with equivalent baseline characteristics was critical to ensuring that post-intervention differences could be evaluated objectively (Sugiyono, 2022).

Data were collected using a reading comprehension test administered as pretests and posttests before and after the intervention. The test instrument was designed around key reading comprehension indicators: identifying main ideas, finding key information, answering text-based questions, drawing conclusions, and retelling text content in students' own words. Instrument items were aligned with instructional objectives and third-grade reading development standards. Prior to data collection, the instrument underwent content and empirical validation. Content validity was evaluated by academic supervisors, Indonesian language subject specialists, and third-grade class teachers. Empirical validity was assessed using Pearson's Product-Moment correlation. Instrument reliability was calculated using Cronbach's Alpha coefficient to verify internal consistency across test items (Arikunto, 2019; Sugiyono, 2022).

The research procedures were carried out across several phases: initial observation, instrument development, expert validation, pretest administration, instructional intervention, posttest administration, and data analysis. In the experimental class, instruction was delivered using picture story media. Students were guided to read texts, observe accompanying illustrations, link visual content with written details, discuss story narratives, locate key information, answer comprehension questions, and summarize readings. Illustrations were intentionally utilized as visual scaffolds to facilitate textual interpretation. Conversely, the control group received instruction without picture story media. Upon completing the instructional sessions, posttests were administered to both groups using identical instruments to assess post-intervention reading comprehension performance.

Data analysis comprised descriptive and inferential statistics. Descriptive statistics summarized pretest and posttest results using mean scores, minimum scores, maximum scores, and standard deviations. Before conducting hypothesis testing, prerequisite checks were performed, including the Shapiro-Wilk normality test and Levene's test for homogeneity of variance. Upon satisfying normality and homogeneity assumptions, hypothesis testing was conducted using an Independent Samples t-Test to evaluate mean differences in reading comprehension between the experimental and control groups. Additionally, normalized gain (N-Gain) analysis was performed to determine the relative magnitude of improvement from pretest to posttest scores. The N-Gain formula applied is as follows:

$$\text{N-Gain} = \frac{\text{Posttest Score} - \text{Pretest Score}}{\text{Maximum Score} - \text{Pretest Score}}$$

Hypothesis testing was evaluated at a significance level of $\alpha = 0.05$. A significance value (p) of less than 0.05 led to the rejection of the null hypothesis (H_0) and acceptance of the alternative hypothesis (H_1), indicating a statistically significant difference between the experimental and control groups. Conversely, a significance value greater than 0.05 indicated no statistically significant difference. The Independent Samples t-Test allowed for comparing two independent group means, while N-Gain provided descriptive measures of score gains following instruction. This analytical workflow systematically evaluated changes in reading comprehension while testing performance differences between students taught with picture story media and those taught without them (Ghozali, 2021; Sugiyono, 2022).

RESULTS

This study was conducted at MIN 12 Medan to investigate the effect of picture story learning media on the reading comprehension ability of third-grade students. The study comprised two groups: a control class and an experimental class, each consisting of 26 students. The research began with a pretest, followed by the instructional phase, and concluded with a posttest. In the experimental class, learning was facilitated using picture story media focusing on announcement text reading, whereas the control class received conventional instruction without picture story media. The control class pretest was administered on May 12, 2026, and the experimental class pretest on May 13, 2026. Posttests were conducted on May 21 and May 22, 2026, respectively.

Instrument Validity Testing

Validity was established through expert judgment and empirical testing using Pearson's Product-Moment correlation. Empirical validation involved 26 respondents sharing demographic characteristics similar to the research sample. The validity test results demonstrated that all evaluated aspects yielded $r_{calculated}$ values greater than r_{table} (0.388) at a 5% significance level. Consequently, all item categories were declared valid and suitable for measuring reading comprehension.

Table 1. Instrument Validation Results

Aspect	rcalculated	rtable	Category
Content Comprehension	0.759	0.388	Valid
Information Retrieval	0.756	0.388	Valid
Word Meaning	0.664	0.388	Valid
Drawing Conclusions	0.794	0.388	Valid
Retelling Content	0.719	0.388	Valid

Source: SPSS Version 32 Data Processing Results, 2026.

The data show that $r_{calculated}$ values across all categories exceeded r_{table}. The highest validity coefficient was observed in the "Drawing Conclusions" aspect (0.794), while the lowest was recorded in "Word Meaning" (0.664). Despite these variations, all aspects met validity criteria, as correlation coefficients remained above 0.388.

Instrument Reliability Testing

Instrument reliability was assessed using Cronbach's Alpha to verify consistency in measuring reading comprehension. The analysis yielded a reliability coefficient of 0.876 for both pretest and posttest instruments. This coefficient falls within the "Very High" category, confirming that the instrument was reliable for research data collection.

Table 2. Instrument Reliability Results

Instrument Form	Reliability Coefficient	Category
Pretest Instrument Test	0.876	Very High

Instrument Form	Reliability Coefficient	Category
Posttest Instrument Test	0.876	Very High

Source: SPSS Version 32 Data Processing Results, 2026.

As shown in Table 2, the Cronbach's Alpha value of 0.876 indicates high internal consistency across test items. This value exceeds standard acceptable reliability thresholds, demonstrating consistent measurement performance.

Item Difficulty Level

Item difficulty analysis evaluated the performance characteristics of each indicator within the pretest and posttest instruments. The results showed that all indicators across both test forms fell into the "Easy" difficulty index.

Table 3. Difficulty Level of Pretest Items

Pretest Item Indicator	Difficulty Index	Category
Understanding Reading Content	0.91	Easy Item
Identifying Key Information	0.87	Easy Item
Understanding Word Meaning	0.83	Easy Item
Drawing Conclusions	0.89	Easy Item
Retelling Content	0.90	Easy Item

Source: SPSS Version 32 Data Processing Results, 2026.

Based on Table 3, difficulty index values ranged from 0.83 to 0.91. The highest index was recorded for "Understanding Reading Content" (0.91), whereas the lowest was recorded for "Understanding Word Meaning" (0.83). All indicators fell within the easy category.

Table 4. Difficulty Level of Posttest Items

Posttest Item Indicator	Difficulty Index	Category
Understanding Reading Content	0.91	Easy Item
Identifying Key Information	0.95	Easy Item
Understanding Word Meaning	0.96	Easy Item
Drawing Conclusions	0.89	Easy Item
Retelling Content	0.97	Easy Item

Source: SPSS Version 32 Data Processing Results, 2026.

The posttest difficulty analysis yielded index values ranging between 0.89 and 0.97, indicating that all test indicators were categorized as easy, with no items categorized as difficult.

Discrimination Index Analysis

Discrimination index analysis was conducted to determine the capacity of each test item to distinguish between high-performing and low-performing students in reading comprehension. Results indicated that all pretest and posttest indicators fell within "Good" and "Very Good" discrimination categories.

Table 5. Discrimination Index of Pretest Items

Pretest Item Indicator	Discrimination Index	Category
Understanding Reading Content	0.71	Very Good
Identifying Key Information	0.64	Good
Understanding Word Meaning	0.57	Good
Drawing Conclusions	0.71	Very Good
Retelling Content	0.64	Good

Source: SPSS Version 32 Data Processing Results, 2026.

The results indicate that "Understanding Reading Content" and "Drawing Conclusions" demonstrated discrimination values of 0.71 ("Very Good"). Meanwhile, "Identifying Key Information" and "Retelling Content" yielded values of 0.64, and "Understanding Word Meaning" yielded 0.57, all falling within the "Good" category.

Table 6. Discrimination Index of Posttest Items

Posttest Item Indicator	Discrimination Index	Category
Understanding Reading Content	0.64	Good
Identifying Key Information	0.71	Very Good
Understanding Word Meaning	0.57	Good
Drawing Conclusions	0.64	Good
Retelling Content	0.71	Very Good

Source: SPSS Version 32 Data Processing Results, 2026.

As shown in Table 6, all posttest indicators demonstrated good-to-very-good discrimination capacity, confirming that the instrument effectively differentiated student reading comprehension levels.

Learning Outcomes of the Control Class

Control class data were collected from 26 students via pretest and posttest measures. The control class received conventional instruction without picture story media. The analysis indicated an improvement in reading comprehension following instruction.

Table 7. Control Class Learning Outcomes

Statistic	Pretest	Posttest
Number of Students	26	26
Number of Items	5	5
Total Score Sum	1,495	1,880
Mean Score	57.500	72.308
Minimum Score	45	60
Maximum Score	70	85
Standard Deviation	7.1063	7.3798

Source: SPSS Version 32 Data Processing Results, 2026.

Table 7 shows that the mean score of the control class increased from 57.500 on the pretest to 72.308 on the posttest, reflecting a mean gain of 14.808 points. The minimum score rose from 45 to 60, while the maximum score rose from 70 to 85. Standard deviation changed slightly from 7.1063 to 7.3798, indicating a minor increase in posttest score variance.

Learning Outcomes of the Experimental Class

The experimental class comprised 26 students who received reading comprehension instruction integrated with picture story media during lessons on announcement texts.

Table 8. Experimental Class Learning Outcomes

Statistic	Pretest	Posttest
Number of Students	26	26
Number of Items	5	5
Total Score Sum	1,470	2,155
Mean Score	56.538	82.885
Minimum Score	45	70
Maximum Score	70	95
Standard Deviation	7.0384	6.3519

Source: SPSS Version 32 Data Processing Results, 2026.

Table 8 demonstrates that the mean reading comprehension score of the experimental group increased from 56.538 on the pretest to 82.885 on the posttest, achieving a mean gain of 26.347 points. Minimum scores increased from 45 to 70, and

maximum scores rose from 70 to 95. Concurrently, the standard deviation decreased from 7.0384 to 6.3519, indicating that posttest scores became more tightly clustered around the mean compared to baseline scores.

Comparing both groups reveals that while both made gains, the magnitude differed substantially. The control class improved by 14.808 points, whereas the experimental class improved by 26.347 points. This differential score gain indicates that instruction using picture story media produced a larger score increase than conventional instruction.

Minimum and Maximum Score Profiles

Table 9. Minimum and Maximum Score Profiles

Research Group	Minimum	Maximum	Range
Control Pretest	45	70	25
Experimental Pretest	45	70	25
Control Posttest	60	85	25
Experimental Posttest	70	95	25

Source: SPSS Version 32 Data Processing Results, 2026.

Table 9 confirms that both groups possessed identical baseline scores (minimum 45, maximum 70, range 25). Following instruction, the control group minimum score increased to 60 and maximum to 85. In contrast, the experimental group reached a minimum score of 70 and a maximum score of 95, confirming higher overall achievement following picture story media integration.

Normality Testing

Normality was tested using the Shapiro-Wilk test. Pretest results yielded significance values of $p = 0.164$ for the control group and $p = 0.086$ for the experimental group. Because both values exceeded 0.05, pretest data were normally distributed.

Table 10. Pretest Normality Test Results

Group	Shapiro-Wilk Sig.	Conclusion
Control	0.164	Normal
Experimental	0.086	Normal

Source: SPSS Version 32 Data Processing Results, 2026.

Posttest normality testing yielded significance values of $p = 0.139$ for the control group and $p = 0.106$ for the experimental group. Since both values exceeded 0.05, posttest data were also confirmed to be normally distributed.

Table 11. Posttest Normality Test Results

Group	Shapiro-Wilk Sig.	Conclusion

Group	Shapiro-Wilk Sig.	Conclusion
Control	0.139	Normal
Experimental	0.106	Normal

Source: SPSS Version 32 Data Processing Results, 2026.

Homogeneity Testing

Homogeneity of variance was evaluated using Levene's test. Significance values of $p = 0.834$ for pretests and $p = 0.425$ for posttests were obtained. Because both values exceeded 0.05, variance homogeneity assumptions were satisfied.

Table 12. Homogeneity Test Results

Data	Sig.	Conclusion
Pretest	0.834	Homogeneous
Posttest	0.425	Homogeneous

Source: SPSS Version 32 Data Processing Results, 2026.

Because normality and homogeneity assumptions were met, parametric statistical testing was deemed appropriate.

Normalized Gain (N-Gain) Analysis

N-Gain analysis evaluated the relative growth in reading comprehension performance. Shapiro-Wilk normality testing on N-Gain scores yielded $p = 0.329$ for the control group and $p = 0.512$ for the experimental group, confirming normal distribution ($p > 0.05$).

Table 13. N-Gain Normality Test Results

Research Group	Shapiro-Wilk Sig.	Conclusion
Control	0.329	Normal
Experimental	0.512	Normal

Source: SPSS Version 32 Data Processing Results, 2026.

Levene's test on N-Gain scores produced a significance value of $p = 0.132$. Since $p > 0.05$, variance homogeneity for N-Gain was confirmed, fulfilling prerequisite conditions for Independent Samples t-Testing.

Table 14. N-Gain Homogeneity Test Results

Data	Levene's Test Sig.	Conclusion
N-Gain	0.132	Homogeneous

Source: SPSS Version 32 Data Processing Results, 2026.

Hypothesis Testing

Hypothesis testing was executed using an Independent Samples t-Test on N-Gain scores between control and experimental groups. Calculating N-Gain enabled comparison of comprehension growth across different instructional conditions. The t-test yielded $p < 0.001$. Because $p < 0.05$, H_0 was rejected and H_1 was accepted. Thus, a statistically significant difference in reading comprehension gain existed between the control and experimental groups.

Table 15. Independent Samples t-Test Results on N-Gain

Test	Sig. (2-tailed)	α	Decision
Independent Samples t-Test N-Gain	< 0.001	0.05	H_0 Rejected, H_1 Accepted

Source: SPSS Version 32 Data Processing Results, 2026.

These statistical outcomes indicate that picture story learning media significantly influenced reading comprehension growth differences. The control group achieved a mean N-Gain of 0.3592 (35.92%), whereas the experimental group achieved a mean N-Gain of 0.6176 (61.76%), reflecting significantly higher growth in the experimental group.

Table 16. Control Group N-Gain Scores

Resp.	Pretest	Posttest	N-Gain	Category
1	50.0	60.0	0.20	Low
2	55.0	70.0	0.33	Moderate
3	60.0	75.0	0.38	Moderate
4	45.0	60.0	0.27	Low
5	50.0	65.0	0.30	Moderate
6	55.0	70.0	0.33	Moderate
7	60.0	75.0	0.38	Moderate
8	65.0	80.0	0.43	Moderate
9	50.0	65.0	0.30	Moderate
10	55.0	70.0	0.33	Moderate
11	60.0	75.0	0.38	Moderate
12	65.0	80.0	0.43	Moderate
13	70.0	85.0	0.50	Moderate
14	45.0	60.0	0.27	Low

Resp.	Pretest	Posttest	N-Gain	Category
15	50.0	65.0	0.30	Moderate
16	55.0	70.0	0.33	Moderate
17	60.0	75.0	0.38	Moderate
18	65.0	80.0	0.43	Moderate
19	70.0	85.0	0.50	Moderate
20	55.0	70.0	0.33	Moderate
21	60.0	75.0	0.38	Moderate
22	65.0	80.0	0.43	Moderate
23	50.0	65.0	0.30	Moderate
24	55.0	70.0	0.33	Moderate
25	60.0	75.0	0.38	Moderate
26	65.0	80.0	0.43	Moderate

Source: SPSS Version 32 Data Processing Results, 2026.

Table 16 indicates that most control group students achieved N-Gain values in the moderate category. Three students fell into the low category (Respondents 1, 4, and 14), while the maximum control group N-Gain reached 0.50.

Table 17. Experimental Group N-Gain Scores

Resp.	Pretest	Posttest	N-Gain	Category
1	50.0	75.0	0.50	Moderate
2	55.0	80.0	0.56	Moderate
3	60.0	85.0	0.63	Moderate
4	45.0	75.0	0.55	Moderate
5	50.0	80.0	0.60	Moderate
6	55.0	85.0	0.67	Moderate
7	55.0	90.0	0.78	High
8	55.0	85.0	0.67	Moderate
9	50.0	75.0	0.50	Moderate

Resp.	Pretest	Posttest	N-Gain	Category
10	50.0	80.0	0.60	Moderate
11	55.0	85.0	0.67	Moderate
12	65.0	90.0	0.71	High
13	70.0	90.0	0.67	Moderate
14	45.0	70.0	0.45	Moderate
15	50.0	75.0	0.50	Moderate
16	55.0	80.0	0.56	Moderate
17	60.0	85.0	0.63	Moderate
18	65.0	90.0	0.71	High
19	70.0	95.0	0.83	High
20	55.0	80.0	0.56	Moderate
21	60.0	85.0	0.63	Moderate
22	65.0	90.0	0.71	High
23	50.0	75.0	0.50	Moderate
24	55.0	80.0	0.56	Moderate
25	60.0	85.0	0.63	Moderate
26	65.0	90.0	0.71	High

Source: SPSS Version 32 Data Processing Results, 2026.

In the experimental group, most students achieved moderate N-Gain values, while several achieved high gains. The highest recorded N-Gain was 0.83 (Respondent 19), with additional high-category scores including 0.78 and multiple 0.71 values. This demonstrates that reading comprehension improvements were evident both at the group mean level and across individual student gains.

In summary, reading comprehension performance increased across both groups post-instruction. However, score gains in the experimental group (26.347 points) were higher than those in the control group (14.808 points). Furthermore, posttest standard deviation in the experimental class dropped from 7.0384 to 6.3519, reflecting greater post-intervention score homogeneity. Normalized gain calculations further highlighted this divergence, yielding a mean N-Gain of 0.6176 (61.76%) for the experimental group versus 0.3592 (35.92%) for the control group. Hypothesis testing confirmed this statistical significance ($p < 0.001$), supporting the conclusion that picture story learning

media significantly enhanced third-grade reading comprehension performance at MIN 12 Medan.

DISCUSSION

The research findings indicate that using picture story learning media produced a statistically significant difference in reading comprehension gain between the experimental and control classes. In the control group, the mean score increased from 57.500 on the pretest to 72.308 on the posttest, representing a mean gain of 14.808 points. Conversely, in the experimental class taught with picture story media, the mean score improved from 56.538 to 82.885, representing an increase of 26.347 points. This difference was further evidenced by N-Gain values of 0.3592 in the control class and 0.6176 in the experimental class. The Independent Samples t-Test on N-Gain produced a significance level of $p < 0.001$, confirming a statistically significant difference in reading comprehension growth between the two groups.

These findings align with research conducted by Suhrah et al. (2023), who examined picture stories in elementary reading instruction. Their work demonstrated that integrating picture stories within a process skill approach positively correlated with improvements in student reading comprehension and reading interest. The primary parallel lies in using illustrations as supportive scaffolds that assist learners in text processing. In the present study at MIN 12 Medan, the mean increase of 26.347 points in the experimental group demonstrates that students instructed with picture stories achieved larger score gains than those in conventional instruction. Thus, these findings provide additional empirical evidence that combining verbal text with visual representations enhances reading comprehension in primary school students.

Furthermore, these results correspond with findings by Juniati et al. (2024) regarding the impact of picture storybooks on the reading comprehension of fourth-grade students at SDN 3 Rempek. Utilizing a quantitative experimental framework, their study specifically targeted reading comprehension as the primary observed dependent variable. This alignment confirms that picture story media are effective not only for early reading acquisition (decoding) but also for advancing intermediate reading comprehension. In this study, gains were reflected across multiple test indicators, including text content comprehension, main information retrieval, vocabulary acquisition, drawing conclusions, and narrative retelling. The measurement instrument demonstrated strong empirical validity and high internal consistency ($\alpha = 0.876$).

These outcomes can also be evaluated alongside research by Mawardah and Rambe (2024), who developed picture storybooks to improve primary reading performance using an ADDIE Research and Development (R&D) model with third-grade students. While Mawardah and Rambe focused on product validation and practical development, the current study at MIN 12 Medan utilized a quasi-experimental design to quantitatively evaluate comparative gain differences. Consequently, this study provides complementary quantitative evidence demonstrating the comparative effectiveness of picture story media in third-grade *madrasah ibtidaiyah* reading instruction.

From an instructional processing perspective, picture story media help young learners map verbal information onto visual representations. This mechanism aligns with findings by Adams et al. (2024), who highlighted picture books as visual scaffolds for processing informational language. They noted that illustrated texts assist students in navigating complex linguistic demands by supporting vocabulary acquisition, sentence structure parsing, paraphrasing, and decoding complex informational text. In this study, picture story media were integrated into lessons on reading announcement texts. Students engaged not only with printed language but also with visual cues that anchored textual

statements within relatable contexts. Therefore, the observed comprehension gains can be understood as a function of continuous visual scaffolding during text processing.

The data also reveal that improvements occurred not only at the group mean level but across individual student profiles. In the experimental class, most students achieved moderate N-Gain scores, and several achieved high-category gains (reaching values of 0.83, 0.78, and 0.71). Conversely, control group N-Gains remained predominantly in the moderate category, with three students classified in the low category and a maximum N-Gain capped at 0.50. This pattern indicates that picture story media facilitated broader individual achievement across varying student performance levels, although individual variation persisted.

These results further support findings by Nanditasari and Wibawa (2024), who developed picture storybooks to address reading instruction characterized by dense, text-heavy materials lacking interactive visual media. Their development aimed to align instructional media with primary students' learning needs. A similar dynamic was observed at MIN 12 Medan: the experimental group engaged with dual-coded (text and image) media, whereas the control group relied on standard text-only delivery. This instructional divergence generated posttest mean performance differences (82.885 in the experimental class versus 72.308 in the control class).

Similarly, research by Septianingsi and Koeswanti (2025) on developing "Certagam" (illustrated storybooks) positioned picture story media as a direct tool for fostering elementary reading comprehension. Their R&D testing reinforced the premise that picture storybooks should serve as direct comprehension aids rather than mere attention-getting devices. In the current study, measured aspects included understanding content, identifying key information, interpreting word meaning, drawing inferences, and retelling narratives. All five indicators showed valid empirical properties with correlation values ranging between 0.664 and 0.794.

It is noteworthy that conventional instruction also yielded reading comprehension gains, with the control class improving by 14.808 points from pretest to posttest. This indicates that reading skill development was not exclusive to the experimental intervention. However, the greater gain of 26.347 points in the experimental group underscores the added value of the intervention. This distinction demonstrates that picture story media functioned as an effective instructional scaffold that enhanced learning outcomes beyond standard teaching practices.

From a statistical standpoint, these conclusions are supported by rigorous diagnostic testing. Pretest and posttest datasets satisfied normality (Shapiro-Wilk $p > 0.05$) and homogeneity of variance (Levene's test $p > 0.05$) prerequisites for parametric testing. Furthermore, N-Gain homogeneity was confirmed ($p = 0.132$), and the Independent Samples t-Test revealed significant differential growth ($p < 0.001$).

Overall, the empirical patterns observed at MIN 12 Medan align consistently with prior research on picture story media while providing specific empirical insights into third-grade *madrasah ibtidaiyah* learners. While prior literature supports picture stories for boosting reading interest and general text understanding, this quasi-experimental investigation confirms that students receiving picture story media achieved significantly higher score gains than control peers (26.347 points vs. 14.808 points; $p < 0.001$). Therefore, these results reinforce the pedagogical value of picture story media as an effective instructional alternative for enhancing reading comprehension in primary Islamic education settings.

CONCLUSION

Based on the research findings, picture story learning media significantly improved the reading comprehension ability of third-grade students at MIN 12 Medan. The experimental group's mean score increased from 56.538 to 82.885 (a 26.347-point gain), whereas the control group increased from 57.500 to 72.308 (a 14.808-point gain). The Independent Samples t-Test on N-Gain scores revealed a significant difference ($p < 0.001$), with the experimental group achieving an average N-Gain of 0.6176 compared to 0.3592 for the control group. These findings demonstrate that picture story media provide an effective instructional alternative for helping young learners comprehend written text through the dual integration of textual and visual information. However, this study was limited to 52 students in a single madrasah, focused exclusively on announcement text genres, and employed a quasi-experimental design without individual randomization. Future research should involve larger, multi-site student samples, explore diverse text genres, incorporate varied item difficulty levels, and extend intervention durations to establish broader generalizations regarding the long-term impact of picture story media on reading comprehension.

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