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Improving Reading Comprehension Skills Through Multisensory-Based Picture Story Media for Slow Learner Students in Grade VI of SD Negeri 003 Kaubun

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ABSTRACT

This study aimed to: (1) describe the implementation of multisensory-based picture story media in reading comprehension instruction for slow learner students, and (2) improve their reading comprehension skills through this approach. This study employed Classroom Action Research (CAR) using the Kemmis and McTaggart model, consisting of planning, action, observation, and reflection stages conducted in two cycles. The research was conducted at SD Negeri 003 Kaubun, East Kutai Regency, East Kalimantan, involving 29 sixth-grade students with six slow learner students as the primary subjects. Data were collected through tests, observations, documentation, and interviews, and analyzed using descriptive comparative techniques. The novelty of this study lies in the integration of picture-based narratives with multisensory stimulation as an adaptive strategy specifically designed to support slow learners' reading comprehension difficulties. The findings showed that multisensory-based picture story media effectively improved students' reading comprehension skills, with the average score of the six target students increasing from 54.00 in the preliminary condition to 65.67 in Cycle I and 77.16 in Cycle II, achieving 100% mastery. The study concludes that multisensory-based picture story media provides an effective and inclusive instructional alternative for improving reading comprehension and learning engagement among slow learner students.

1. Introduction

Inclusive education demands that every child's right to learn be fulfilled, including those with specific cognitive limitations, such as those with special needs and those categorized as slow learners. Slow learners are characterized by intellectual abilities slightly below the average for normal children, but do not fall into the category of severe intellectual disabilities. Therefore, they are often placed in regular classes without adequate treatment. The greatest challenges faced by this

group of students in the academic realm are low information processing capacity, limited short-term memory, and delays in grasping abstract concepts (Nurfadhillah et al., 2022). In the context of language learning, these cognitive barriers directly impact their basic literacy skills, requiring special attention and a differentiated instructional approach to ensure their academic potential continues to develop optimally (Mumpuni & Pratiwi, 2021).

Reading comprehension is one of the most crucial macro-language competencies for elementary school students, especially once they reach sixth grade. Reading comprehension is not simply the mechanical act of pronouncing graphic symbols or letters written on paper, but rather a high-level cognitive process involving the reconstruction of meaning, drawing conclusions, and integrating new information with the reader's existing schemata or prior knowledge (Gustiani et al., 2022). For sixth-grade students, this skill is a key asset for mastering various other subjects that require in-depth text analysis and critical thinking. Failure to master reading comprehension skills in the final stages of elementary school will pose a significant barrier for students as they move on to higher levels of education, where the complexity of academic texts increases exponentially (Rahmawati & Suwandi, 2022).

In reality, slow learners in sixth-grade elementary school often experience profound frustration when faced with lengthy and dense reading comprehension assignments. Their cognitive limitations make decoding extremely slow, draining their cognitive energy solely from recognizing individual words, leaving them without time to grasp the full meaning of the paragraphs they read (Lee, 2021). This weakness in the brain's executive functions causes slow learners to have difficulty identifying main ideas, sequencing events in a story, and grasping implicit messages in a text. If this condition persists without targeted intervention, students will lose motivation to learn, experience a drastic decline in self-confidence, and become trapped in an ever-widening academic gap relative to their peers (Wulandari & Solikhah, 2023).

An external factor that exacerbates the low reading comprehension skills of slow learners is the learning approach implemented by teachers, which tends to be conventional and uniform. Reading instruction often relies on long, monotonous written texts with minimal visual stimuli, designed for students with normal learning speeds (Dixon, 2023). This verbalistic and abstract learning model is ill-suited to slow learners, who require concrete visualizations to grasp concepts (Mukaroma & Agustin, 2022; Mulyati et al., 2025). The lack of adaptive media capable of bridging students' limited abstraction hinders the transfer of knowledge, leading slow learners to become passive, easily bored, and unable to achieve the minimum completion criteria set in the curriculum (Pratama & Nugraheni, 2020).

To overcome this stagnation, innovative learning media are needed that can present reading material in a concrete, engaging manner, and in accordance with children's learning modalities. Picture stories offer a promising instructional solution because they harmoniously and consistently combine verbal text

elements with visual illustrations (Aulia et al., 2024; Oktavianita & Wahidin, 2022). The visual illustrations in picture stories serve not merely as aesthetic decoration but also as cognitive anchors that help slow learners concretize abstract characters, settings, and plots. This reciprocal relationship between text and images makes it easier for students' brains to build mental representations of the texts they read, strengthens short-term memory retention, and facilitates the process of drawing conclusions about the content of the reading independently (Sari & Handayani, 2024).

The effectiveness of using illustrated storytelling media will be much more optimal and comprehensive when integrated with a multisensory approach. Multisensory-based learning is based on the principle that information absorption is more effective when it simultaneously involves more than one sensory pathway: visual (sight), auditory (hearing), tactile (touch), and kinesthetic (movement) (Fitri & Nani Solihati, 2023; Triana & Minsih, 2026). For slow learners who have limitations in one information processing pathway, this multisensory engagement acts as an alternative pathway that mutually strengthens the brain's neural networks in perceiving and understanding the material. When students read text while viewing vivid visuals, listening to the teacher's dramatic intonation, and touching or manipulating the physical elements of the media, all of their sensory modalities actively work to lock in understanding the meaning (Fitriani & Hasanah, 2021).

The application of multisensory illustrated storytelling media provides rich, adaptive stimulation specifically designed to accommodate the learning characteristics of slow learners, who are slow to process single stimuli. Through visual stimulation from color gradations in images, auditory stimulation from sound articulation or relevant story audio effects, and tactile components through activities such as holding media sheets or pointing to words, the workload on students' working memory can be significantly reduced (Lestari et al., 2021). This holistic approach not only facilitates students' cognitive understanding of reading structures but also fosters a positive emotional atmosphere, fosters an intrinsic interest in reading, and alleviates the academic anxiety that often plagues slow learners when faced with literacy activities (Utami & Wardani, 2025).

The urgency of this classroom action research lies in the need to provide prompt, targeted interventions for slow learners before they complete elementary school (Fransiska & Sari, 2026). Given that students are currently in sixth grade, time is crucial, as they will soon transition to junior high school, where the depth of reading texts and the need for independence will be significantly greater. If this gap in reading comprehension skills is not addressed promptly through multisensory-based picture storytelling, the students will undoubtedly experience severe academic failure at the next level due to the lack of an adaptive literacy foundation. Therefore, this research is highly urgent, not merely to achieve academic completion on paper, but also to safeguard the academic future of slow-learning students, ensuring they have sufficient cognitive competencies and self-confidence to face the challenges of further education (Hidayat & Kusuma, 2023).

Implementing Classroom Action Research (CAR) is the most appropriate methodological approach to achieve sustainable improvements in reading comprehension in the classroom. Through the cyclical, collaborative, and reflective characteristics of CAR, researchers can flexibly design, implement, observe, and evaluate each stage of the action to adapt to the dynamics of slow-learning students' learning development (Santoso & Lestari, 2022). Specifically, this classroom action research entitled "Improving Reading Comprehension Skills Through Multisensory-Based Picture Story Media for Slow Learner Students of Grade VI Elementary School" has the main objectives to be achieved. The research objectives are to describe the application of multisensory-based picture story media in teaching reading comprehension to slow-learning students, and to improve the reading comprehension skills of slow-learning students through the use of multisensory-based picture story media.

2. Methodology

This classroom action research employed the Kemmis and McTaggart model, which consists of four components: planning, action, observation, and reflection. In the planning stage, the researcher identified the learning problems, developed instructional designs, prepared observation instruments, and determined indicators of success. The action stage involved implementing lesson plans using multisensory-based picture story media, while observations were conducted simultaneously to collect data on student activities, responses to the media, and teacher performance. At the end of each cycle, reflection was conducted to evaluate the effectiveness of the implemented actions and determine necessary improvements for the next cycle.

The research involved 29 sixth-grade students, with six students identified as slow learners selected as the primary subjects. The selection criteria were based on teacher recommendations, classroom observation results, and students' consistently lower reading comprehension performance compared with classroom learning targets. These students demonstrated characteristics commonly associated with slow learners, including difficulties in understanding reading texts, processing information at a slower pace, requiring repeated explanations, and benefiting from concrete and multisensory learning support. The use of these criteria ensured that the selected subjects represented students who required adaptive instructional strategies to improve reading comprehension (Amelia & Soedjono, 2026).

The researcher used the Kemmis and McTaggart model because it provides a systematic and flexible framework for identifying problems, implementing instructional improvements, evaluating outcomes, and refining actions through continuous reflection. This approach is relevant for improving reading comprehension among slow learners because literacy development requires gradual, repetitive, and adaptive learning processes.

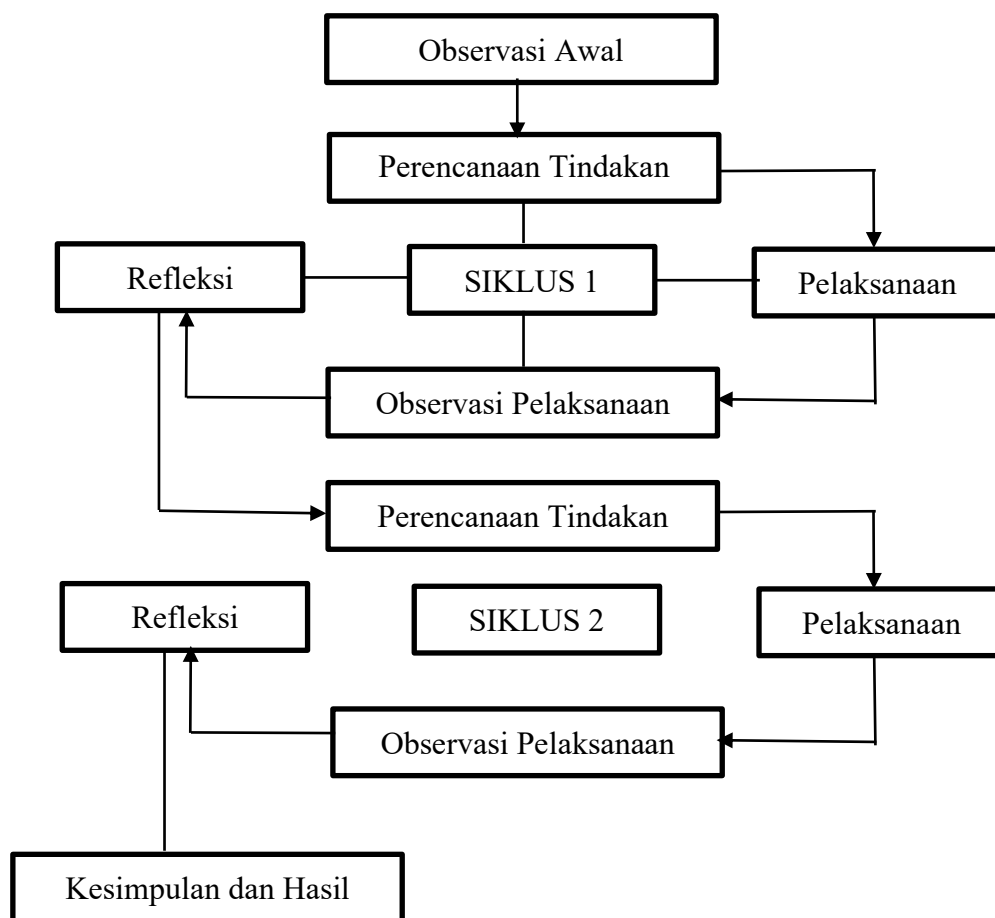


Figure 1. Classroom Action Research Flow

Kemmis and McTaggart explain in detail the stages of classroom action research. These stages are as follows:

Planning Stage

The researcher develops an action plan that includes multisensory-based picture story media, prepares the learning tools and media to be used, and determines the assessment instruments. The researcher seeks input from colleagues on the action plan. Colleagues assist in preparing media or teaching materials and discuss the criteria for the action's success.

Action

The researcher implements the action plan in the classroom learning process in accordance with the design. The researcher applies multisensory-based picture story media. The researcher guides students in the learning process according to the learning scenario. Colleagues assist in implementing the action by providing technical support or in-class mentoring, ensuring the action is implemented according to plan, and observing interactions among the teacher, students, and the material being taught.

Observation

The researcher observes and records student responses during the learning process, such as participation, understanding, and learning outcomes. The researcher collects data through tests, observations, and documentation. Meanwhile, colleagues assisted with recording observed aspects, such as reading fluency and comprehension.

Reflection

The researcher analyzed the data collected during the actions and observations, evaluated the actions' success against established criteria, and discussed the results with colleagues. The researcher determined which actions needed to be repeated, modified, or continued to the next cycle. Colleagues provided suggestions for improvement and helped formulate a plan for the next cycle if the results were not optimal. This analysis was conducted using a checklist and notes on an observation sheet during the teaching and learning process, which implemented multisensory-based picture story media. The results of the Cycle I analysis will then serve as evaluation material to determine whether Cycle II is necessary. In this implementation, it will be measured as a percentage using the following formula:

$$\text{Success rate (\%)} = \frac{\text{number of points achieved}}{\text{Total number of points}} \times 100\%$$

To calculate the success rate of learning implementation, first add up the points obtained on the multisensory-based picture story media observation sheet. This score is then divided by the total number of points on the observation sheet and multiplied by 100%. This calculation results in a success rate.

Using this formula, a student who answers eight questions will receive a score of 80. This score indicates that the student has completed the task, as it exceeds the minimum completion criteria (KKM) at SD Negeri 003 Kaubun, which is set at 75. A cycle is considered successful if there is an increase in the percentage of students achieving a completion score or higher for more than 90% of students.

The formula for calculating the completion percentage is as follows:

$$\text{Class completion} = \frac{\text{Students achieve KKM}}{\text{All students}} \times 100\%$$

Average Learning Outcome Data Analysis

Student achievement can be analyzed using the average formula:

$$\text{Average} = \frac{\text{Sum of all values}}{\text{Number of samples}}$$

The average results obtained by students in the initial data were compared between cycle I and cycle II to determine the average increase in student learning outcomes.

3. Results and Discussion

Results

Prior to implementing Classroom Action Research (CAR) using multisensory-based picture storytelling media, the researchers conducted a pre-test to determine the reading comprehension skills of sixth-grade elementary school students. The pre-test results indicated that students' reading comprehension skills remained relatively low. Most students had difficulty understanding the reading content, identifying important information, determining the main idea, answering text-based questions, and summarizing the reading.

Based on the pre-test results, 12 of the 29 students who participated in the study (41.38%) had achieved mastery of the material according to the established Minimum Completion Criteria (KKM). In contrast, the remaining 17 (58.62%) had not. Recognizing the empirical reality that all six slow learners (ALS, ALDY, AJR, EBN, OKT, PAR) were at the bottom of the class (score range 45–55) and in the incomplete category, the researchers implemented interventions using multisensory-based picture storytelling media in the next meeting, or cycle I.

This research cycle consisted of two cycles, as in Classroom Action Research, which has four stages: Planning, Observation, Action, and Reflection. The results of this study revealed that some students were experiencing learning difficulties. Based on the results of the pre-action test, 12 of the 29 students who participated in the study, or 41.38%, had achieved learning mastery according to the established Minimum Mastery Criteria (KKM). In contrast, the remaining 17, or 58.62%, had not. Recognizing the empirical reality that all six slow learners (ALS, ALDY, AJR, EBN, OKT, PAR) were at the bottom of the class (score range 45–55) and in the incomplete category, the researcher implemented an intervention using multisensory-based picture storytelling media in the next meeting, or Cycle I.

The implementation of Classroom Action Research in Cycle I began with a planning stage focused on preparing learning materials. The planning stage began with the development of the Indonesian Language Learning Module for Grade VI Phase C, with a time allocation of 2 x 35 minutes. The planning focused on introducing a short narrative titled "Budi, a Diligent Child," using two-dimensional visual representations to help bridge reading comprehension barriers.

The objectives of this lesson were for students to be able to identify characters, determine the setting, and analyze the story's message through guided visual stimuli. Quantitative data from Cycle I showed improvement, with the class average rising to 79.82, with a total of 20 students (68.97%) achieving completion. However, for the target group of slow learners, the two-dimensional

visual media intervention in Cycle I was unable to boost their scores above the Minimum Completion Minimum (KKM) of 75. The six slow learner students (ALS, ALDY, AJR, EBN, OKT, and PAR) remained in the incomplete category, with scores ranging from 55 to 60, although each student was higher than the initial score.

Referring to the list of student scores in Cycle I, particularly for the slow learner students (ALS, ALDY, AJR, EBN, OKT, and PAR), further improvements will be made in Cycle II. Based on the observation table above, the overall quality of the learning process was only 69.11%, which falls within the Adequate category. The active enthusiasm indicator recorded the lowest average score, at 1.9. Specifically for slow-learning students, children with ALS (25.00%) and AJR (29.17%) were in the "poor" category. They appeared to tire quickly during lengthy explanations and had difficulty with fine motor skills when asked to sort through dense printed worksheets.

Overall, observations of student behavior in Cycle I indicated that most students remained in the moderate to low category in terms of attention, participation, engagement, understanding, cooperation, and enthusiasm for learning. The use of illustrated storytelling media captured students' attention but did not fully improve the engagement and understanding of all slow-learning students. Therefore, in Cycle II, several learning improvements were implemented through a multisensory approach, larger, clearer images, peer tutoring, image-sequencing activities, and more intensive mentoring to increase student engagement and understanding throughout the learning process.

Based on the analysis of written test results and process observation sheets in Cycle I, the researchers summarized several crucial findings as a basis for revised actions: a). Success: The use of two-dimensional image stimuli was shown to reduce word blocking slightly. Students began to recognize the main character "Budi visually. The average class score increased from 68.97 to 79.82. b). Weaknesses and Constraints: Not all slow-learning students have yet achieved the Minimum Competency (KKM) of 75, as the transition to independently understanding the meaning of words and implied text on worksheets remains too challenging for their cognitive structures. The static nature of the image media does not fully explore children's sensory modalities. c). Fine psychomotor barriers and short concentration durations among students trigger learning fatigue in the latter half of the session.

Cycle II Improvement Plan: Changing the approach from static image media to a comprehensive multisensory-based picture story approach. This strategy integrates visual stimulation (dynamic color images), auditory (reading text with expressive intonation), and kinesthetic-tactile (manipulative activities such as cutting, pasting, and shifting word cards or sequences of story picture fragments). The teaching module was revised by reducing the density of narrative vocabulary to avoid overloading children's working memory.

Furthermore, the research results are based on student activities in Cycle II, as in the steps or stages of Classroom Action Research. Therefore, Cycle II also administered a final summative test with a level of depth on grid instruments equivalent to that of the previous cycle. The results of the written test in Cycle II showed positive progress in reading comprehension, particularly among slow-learners.

This was evident in the scores obtained, which met the expected ideal completion criteria. Quantitative data from the pre-test (initial condition) and Cycle I tests indicated that slow learners were below the Minimum Competency (KKM) but met the KKM in Cycle II. The following is a summary of the data from the research results, which shows the students' post-test scores, presented in full in the following table 1:

Table 1. Learning Outcome Values for Cycles 1 and II

No	Name	Initial Value	Note	Cycle I Value	Note	Cycle I Achievements	Cycle II Value	Note	Cycle II Achievements
1	ALA	80	T	95	T	+ 15	100	T	+ 5
2	ALS	55	BT	60	BT	+ 5	80	T	+ 20
3	ALDY	45	BT	55	BT	+ 10	75	T	+ 20
4	AJR	50	BT	60	BT	+ 10	80	T	+ 20
5	AZ	80	T	90	T	+ 10	100	T	+ 10
6	BDC	75	T	90	T	+ 15	100	T	+ 10
7	CA	70	BT	80	T	+ 10	90	T	+ 10
8	DA	85	T	95	T	+ 10	100	T	+ 5
9	DS	80	T	100	T	+ 20	100	T	0
10	EBN	45	BT	55	BT	+ 10	75	T	+ 20
11	ERL	70	BT	85	T	+ 15	90	T	+ 5
12	ENW	80	T	100	T	+ 20	100	T	0
13	GAB	70	BT	80	T	+ 10	95	T	+ 15
14	JUR	65	BT	70	BT	+ 5	95	T	+ 25
15	MAX	75	T	80	T	+ 5	100	T	+ 20
16	MARS	65	BT	70	BT	+ 5	95	T	+ 25
17	MRID	80	T	80	T	+ 0	85	T	+ 5
18	MWL	70	BT	85	T	+ 15	100	T	+ 15
19	MDZ	70	BT	80	T	+ 10	95	T	+ 15
20	MFAU	70	BT	80	T	+ 10	100	T	+ 20
21	OKT	45	BT	50	BT	+ 5	80	T	+ 30
22	PAR	50	BT	60	BT	+ 10	75	T	+ 15
23	RAYS	80	T	100	T	+ 20	100	T	0
24	RTD	85	T	100	T	+ 15	100	T	0
25	SP	70	BT	70	BT	+ 0	100	T	+ 30
26	SN	70	BT	85	T	+ 15	90	T	+ 5
27	TUS	75	T	85	T	+ 10	95	T	+ 10
28	XBP	80	T	95	T	+ 15	100	T	+ 5
29	YRJ	65	BT	80	T	+ 15	100	T	+ 20
Jumlah		2000		2315		315	2695		380
Rata-rata		68,97		79,82		10,86	92,93		13,10

Note: BT = Not Yet Complete, T = Complete

Quantitative data at the end of Cycle II showed a highly significant and transformative surge in academic performance. The average class score rose from

79.82 in Cycle I to 92.93 in Cycle II, categorized as very good. The most crucial achievement was an absolute classical completion rate of 100%, with all 29 students exceeding the KKM (Minimum Completion Criteria) of 75. The six slow learners also experienced a very high acceleration in their grades, with a constant increase in scores ranging from 75 to 80. This empirically confirms that the barriers to reading comprehension transition have been successfully eliminated through the use of visual-spatial-tactile charts.

The implementation of multisensory-based picture story media effectively improved the reading comprehension skills of slow learner students. The average score of the six slow learner students increased from 54.00 in the preliminary condition to 65.67 in Cycle I and reached 77.16 in Cycle II, with a mastery level of 100%. In addition, the learning activity score of slow learner students increased from an average of 39.58 in Cycle I to 79.16 in Cycle II. Classically, the average class score improved from 68.97 in the preliminary condition to 79.82 in Cycle I and 92.93 in Cycle II, with classical mastery reaching 100%. The study concludes that multisensory-based picture story media can improve both reading comprehension skills and learning activities of slow learner students.

Discussion

Based on the research conducted, the use of illustrated storytelling media has been shown to improve students' reading comprehension positively. This improvement occurred gradually, starting from the initial conditions, through the implementation of actions in Cycle I, and continuing through Cycle II. This finding aligns with the concept of visual learning media, which can enhance conceptual understanding through concrete representations that are easier for students to process (Mayasari et al., 2025).

Furthermore, the use of image-based media has been shown to increase students' cognitive engagement in reading, leading to improved learning outcomes (Tarjiah et al., 2023). In the initial stages, most students still experienced difficulty understanding the reading content, finding important information, determining the main idea, and summarizing the text. This condition indicates low basic literacy skills in decoding and interpreting text. These difficulties are common among students with characteristics of slow learning who have limited information-processing speed (Wahyuningsih & Suranti, 2023). Furthermore, low reading comprehension skills are also influenced by the limited use of concrete and contextual learning media in the learning process (Arni, 2023; Supriyani, 2022).

After implementing interventions in Cycle I using illustrated storytelling, students' reading comprehension skills began to show positive progress. Story visualizations helped students connect text to pictorial representations, facilitating the interpretation of meaning. This aligns with dual coding theory, which posits that information is more readily understood when presented through a combination of verbal and visual cues (Clark & Paivio, 2022; Mayer, 2022). Similar findings indicate that illustrated storytelling can improve basic reading

skills by providing visual stimuli that strengthen understanding of text content (Novianti, 2022; Yuliana Putri et al., 2024).

More significant improvements were observed in Cycle II, when learning incorporated not only illustrated storytelling but also a multisensory approach involving visual, auditory, kinesthetic, and tactile elements. This approach allows students to receive information through multiple sensory pathways simultaneously, thus strengthening cognitive processes in reading comprehension. The effectiveness of multisensory learning has been proven to improve student retention and comprehension significantly (Basam, 2018; Dunn & Dunn, 2017).

Furthermore, multisensory integration increases students' active engagement in learning, thereby impacting overall learning outcomes (Amellina et al., 2023; Julinasari, 2017). At the end of the intervention, all students, including slow learners, had achieved the Minimum Completion Criteria (KKM) set by the school. This success demonstrates that a learning approach tailored to student characteristics has a significant impact on learning outcomes. Slow learners require longer learning times and more concrete and repetitive learning stimuli (Muhibullah, 2025). Therefore, a multisensory approach is an effective strategy because it can accommodate their learning needs more comprehensively (Aliyah et al., 2024; Supriyani et al., 2022).

The success of the illustrated storytelling media in this study is inseparable from its ability to present information visually, making it easier for students to understand. Images serve as a cognitive bridge between text and meaning, helping students understand the storyline, characters, setting, and events. This aligns with visual learning theory, which emphasizes the importance of pictorial representation in enhancing the understanding of abstract concepts (Hanifah et al., 2024).

Furthermore, the use of visual media has also been shown to increase student motivation and engagement in the learning process (Arni, 2023; Putri, 2024). The results of this study align with Putri (2024), who stated that illustrated storytelling is effective in improving elementary school students' reading comprehension. Story visualization helps students grasp the meaning of the text more easily and quickly. Similar findings were also presented by Novianti (2022), who demonstrated a significant improvement in reading skills after using illustrated storytelling. Furthermore, Arni (2023) emphasized that visual media can improve learning outcomes by making it easier for students to connect concepts to real-world representations.

Furthermore, Mubarok and Primasari also explained that the use of visual media allows students to gain more concrete learning experiences because information is no longer abstract (Mubarok et al., 2023; Primasari et al., 2022). This aligns with the theory of meaningful learning, which emphasizes the importance of direct experience in the learning process (Ausubel, 2024). This opinion is reinforced by Arni (2023), who stated that visual media can enhance student learning activities because it encourages active involvement in the learning process (Arni, 2023).

Although illustrated storytelling media has a positive impact, research findings indicate that media alone is insufficient to overcome learning barriers for slow learners. Therefore, in Cycle II, a multisensory approach was implemented as reinforcement. This approach aligns with the characteristics of slow learners, who require concrete, repetitive learning that involves multiple sense (Aliyah et al., 2024). Thus, multisensory integration is a more effective solution for improving students' reading comprehension.

The improvement in students' reading comprehension skills can be explained by the way multisensory-based picture story media reduces cognitive barriers commonly experienced by slow learners. In its implementation, students were not only required to read and observe pictures but also listen to stories, arrange picture sequences, and engage in kinesthetic activities related to the content. The involvement of multiple sensory modalities provided richer learning experiences, allowing students to encode information through various pathways and strengthen memory retention (Dunn & Dunn, 2017; Mayer, 2021). From the perspective of cognitive theory of multimedia learning, the combination of visual and verbal representations helps students construct meaningful mental models by connecting linguistic information with concrete representations. Therefore, picture stories functioned not merely as illustrations but as cognitive scaffolds that assisted slow learners in organizing information, identifying relationships between events, and constructing meaning from texts.

The improvement in reading comprehension also reflects the importance of active meaning-making processes in literacy development. Slow learners often experience difficulties in processing abstract linguistic information, maintaining attention, and integrating new information with existing knowledge. The multisensory-based picture story media addressed these challenges by providing structured sequences, repeated exposure, and concrete representations that supported comprehension development. Through activities such as arranging picture sequences and connecting visual elements with story content, students were encouraged to actively construct understanding rather than passively receive information. This finding supports the view that reading comprehension develops through interaction between the reader, text, and contextual support, particularly for learners who require additional cognitive assistance (Salehudin et al., 2022; Yulianda Putri Rahmawati & Mohammad Salehudin, 2021).

Furthermore, the effectiveness of this approach is closely related to the learning characteristics of slow learners. Students with slower cognitive processing abilities generally require explicit instruction, repetition, and additional sensory support to achieve conceptual understanding (Mansur, 2022). The multisensory approach provided these supports by allowing students to process information through multiple channels while reducing dependence on a single modality.

Consequently, the improvement observed in this study was not solely caused by the use of picture media, but by the systematic integration of visual, auditory, and kinesthetic stimulation that matched students' learning needs (Charty & Syofyan, 2024). This explains why students demonstrated increased comprehension

performance and engagement throughout the intervention. Therefore, multisensory-based picture story media can be considered an adaptive instructional strategy that bridges the cognitive characteristics of slow learners with the demands of reading comprehension development.

Furthermore, Wahyuningsih and Suranti (2023) emphasized that teachers need to adapt their learning strategies to student characteristics. Teachers not only act as transmitters of material but also as facilitators who create an adaptive learning environment (Salehudin et al., 2023; Wahyuningsih et al., 2023). This is relevant to this study, which demonstrated the use of peer tutoring, language simplification, and individual guidance as forms of accommodation services (Al Adzillina & Hasanah, 2021; Lestari et al., 2021). They also stated that slow learners have lower concentration levels, thus requiring more engaging and interactive learning strategies. This finding aligns with research showing that multisensory-based illustrated storytelling media can increase student focus and participation during the learning process. Furthermore, Taqi et al. (2023) emphasized that adaptive learning strategies can improve the learning success of students with special needs (Robi et al., 2025; Taqi Kirey Devana & Juanda, 2023).

Thus, the results of this study demonstrate that the combination of illustrated story media and a multisensory approach influences the improvement in the reading comprehension skills of slow learners (Silfani et al., 2024; Sormin et al., 2023). The integration of visual, auditory, kinesthetic, and tactile has been proven to improve text comprehension more effectively and meaningfully. Therefore, multisensory-based illustrated story media can be recommended as an effective learning strategy to improve the reading literacy of elementary school students, especially those in the slow-learner category (Awalia Fadillah & Endah Sugiharti, 2025; Siti Napisah et al., 2025).

4. Conclusion

This study concludes that the implementation of multisensory picture-based storytelling media successfully improved reading comprehension skills among slow learner students. The success of the intervention was demonstrated through students' improved ability to understand reading content, identify important information, and construct meaning from texts through the integration of visual, auditory, kinesthetic, and tactile stimulation. The use of picture-based storytelling provided concrete representations that helped students overcome difficulties in processing abstract information, while multisensory activities increased their attention, participation, confidence, and engagement throughout the learning process.

This study confirms that the effectiveness of the media was not only derived from the use of visual materials but also from the systematic combination of sensory experiences and teacher-guided instructional strategies. Therefore, multisensory picture-based storytelling can be considered an adaptive and inclusive learning

approach that supports differentiated literacy instruction. The findings highlight the importance of designing learning environments that accommodate the cognitive characteristics of slow learners and provide meaningful opportunities for students with learning barriers to participate actively in reading activities.

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