

The Application of a Multisensory Strategy Using Picture Word Cards to Improve Early Reading Skills in Elementary School Students

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Abstract: Early reading skills are fundamental abilities that elementary school students must develop, as they provide the foundation for successful learning at subsequent educational levels. However, many students still experience difficulties in recognizing letters and reading syllables, words, and simple sentences. This study aimed to describe the implementation of a multisensory strategy assisted by picture word cards and to examine its effect on elementary school students' early reading skills. The study employed a quantitative approach using a quasi-experimental method with a One-Group Pretest–Posttest Design. The sample consisted of 11 first-grade students from SDN Pelandakan 1, selected through purposive sampling. Data were collected through tests and classroom observations and were analyzed using descriptive statistics, a normality test, a paired-sample t-test, and N-Gain analysis. The findings revealed that the implementation of a multisensory strategy assisted by picture word cards significantly improved students' early reading skills. The mean score increased from 19.64 on the pretest to 36.36 on the posttest. The paired-sample t-test showed a statistically significant difference between students' early reading skills before and after the intervention ($p < 0.001$), while the N-Gain score of 0.8441 was classified as high. In addition, classroom observation results indicated that 81.82% of the students were categorized as very active during the learning process. These findings suggest that the multisensory strategy assisted by picture word cards is effective in improving the early reading skills of first-grade elementary school students. Thus, multisensory strategies assisted by picture word cards can be used as an alternative learning to improve the initial reading ability of elementary school students.

Keywords: Multisensory Strategy; Aided by Picture Word Cards; Reading Skills; Early Reading; Elementary School.

Abstrak: Keterampilan membaca awal merupakan kemampuan mendasar yang harus dikembangkan oleh siswa sekolah dasar, karena kemampuan ini menjadi landasan keberhasilan pembelajaran di tingkat pendidikan selanjutnya. Namun, banyak siswa masih mengalami kesulitan dalam mengenali huruf dan membaca suku kata, kata, dan kalimat sederhana. Penelitian ini bertujuan untuk mendeskripsikan implementasi strategi multisensori yang dibantu oleh kartu kata bergambar dan untuk menguji pengaruhnya terhadap keterampilan membaca awal siswa sekolah dasar. Penelitian ini menggunakan pendekatan kuantitatif dengan metode kuasi-eksperimental dengan Desain Pretest–Posttest Satu Kelompok. Sampel terdiri dari 11 siswa kelas satu dari SDN Pelandakan 1, yang dipilih melalui pengambilan sampel bertujuan. Data dikumpulkan melalui tes dan observasi kelas dan dianalisis menggunakan statistik deskriptif, uji normalitas, uji t sampel berpasangan, dan analisis N-Gain. Hasil penelitian menunjukkan bahwa implementasi strategi multisensori yang dibantu oleh kartu kata bergambar secara signifikan meningkatkan keterampilan membaca awal siswa. Skor rata-rata meningkat dari 19,64 pada pretest menjadi 36,36 pada posttest. Uji t sampel berpasangan menunjukkan perbedaan yang signifikan secara statistik antara keterampilan membaca awal siswa sebelum dan sesudah intervensi ($p < 0,001$), sedangkan skor N-Gain sebesar 0,8441 diklasifikasikan sebagai tinggi. Selain itu, hasil

observasi kelas menunjukkan bahwa 81,82% siswa dikategorikan sangat aktif selama proses pembelajaran. Temuan ini menunjukkan bahwa strategi multisensori yang dibantu kartu kata bergambar efektif dalam meningkatkan keterampilan membaca awal siswa kelas satu sekolah dasar. Dengan demikian, strategi multisensori yang dibantu kartu kata bergambar dapat digunakan sebagai pembelajaran alternatif untuk meningkatkan kemampuan membaca awal siswa sekolah dasar.

Kata Kunci: Strategi Multisensori; Dibantu Kartu Kata Bergambar; Keterampilan Membaca; Membaca Awal; Sekolah Dasar.

INTRODUCTION

Early reading is a fundamental competency that is essentials for students, particularly at the elementary school level. Reading is a cognitive activity aimed at acquiring variants types of information (Amalia et al., 2023). Reading skills support vital roles in expanding knowledge, given that most knowledge transfer occurs through reading (Khaq et al., 2023). Through reading, students can learn all subjects (Simanjuntak et al., 2020). If a person has poor reading skills, this will affect their ability to understand the information obtained from what they read (Mirnawati & Agatha Valent Fabriya, 2022). Therefore, reading is also a member of basic skills that require understanding from an early age.

Early reading is the phase in which children are not yet able to read (Mardani, 2022). Early reading is a vital foundational step while learning to read, encompassing the capability to identify alphabet letters and phonological units, spell, read words, and construct simple sentences as a foundation for developing experts reading skills (Herawati et al., 2025). In the current curriculum, particularly the Merdeka Curriculum, early reading is included in Indonesian language instruction during Phase A (grades 1 and 2 of elementary school). Early reading skills can be identified through visual activities related to understanding symbols or written text that is spoken aloud (Yani, 2019). Early reading emphasizes the vocalization of written symbols, the use of proper enunciation and pitch, as well as fluency and clarity of speech as part of the process of acquiring meaning and information (Safira et al., 2020). Thus, success in early reading during the earlier grades in primary school is a crucial factor in supporting the smooth progression of students' learning. However, in reality, not all elementary school students have early reading skills that have developed in line with their age level.

Based on observations in the field, there are still variants factors causing lower-grade elementary school students to experience difficulties in early reading. As seen from the results of observations conducted at SDN Pelandakan 1, multiple concerns were identified in the classroom learning process. First, students' lack of early reading skills, for example difficulty alphabet recognition, combining letters into phonological units, reading straightforward language, and reading short sentences with insufficient fluency. The reading skills of lower-grade students are low and vary widely, ranging from those who cannot read yet, to those who are just learning letters, to those who can read but are not yet fluent (Atiya Farhah, 2022). Second, there is a lack of variety in the learning strategies used by teachers. Limitations in the application of learning strategies that have not been fully adapted to the individual needs of students, particularly for those who still struggle to identify letters, spell, or understand the meaning of words in a text (Rahmawati & Pandjaitan, 2020).



Early reading instruction in elementary school generally still focuses on lecture-based strategies and verbal reading practice, causing students to become bored quickly and lack willpowers (Khairunnisa et al., 2025). In fact, Students at the elementary school level typically experience the concrete operational stage of development, which requires learning that engages multiple senses so that information can be better received and understood (Dessy Trisnawati et al., 2026). Therefore, learning strategies are needed that can optimize the engagement of students' senses of sight, listening, and movement, and that are tailored to individual needs to help them overcome barriers in the reading learning process.

Therefore, one strategy that can be implemented to address this issue is the multisensory strategy. The multisensory strategy is an approach that optimizes the use of all the senses during the learning process (Basam & Sulfasyah, 2018; Wati et al., 2023). The multisensory strategy utilizes variants senses for example Tangibly perceived, visual, auditory, and motoric to help students understand information more deeply and strengthen the connection between letters and their sounds (Taib et al., 2022; Triana & Minsih, 2026). All of a child's the learning process engages various senses using this technique, including touch, movement, listening, and sight (Aba bahrn Mustofa & Mukhoyyaroh, 2020). This strategy utilizes the VAKT approach, which includes visual (through sight), auditory (through listening), Tangibly perceived (through touch), and kinesthetic (through body movement) elements (Peavler, 2019). Multisensory strategies play a role in refining elementary school students' early reading skills by engaging variants senses, consequently making it simpler for them to identify letters, understand text content, and associate sounds with letter symbols more effectively. These strategies are believed to enhance students' memory and comprehension of early reading material and improve their understanding of letters and words.

In addition to learning strategies, the application of proper learning materials also plays an a crucial role refining students' early reading skills. Picture word cards are small cards containing pictures, text, or symbols that prompt or steer students to something related to the picture (Gading et al., 2019). Cards containing pictures can serve to help students enhance spelling and vocabulary abilities. These cards serve as cues and prompts for students to make available the desired responses. Picture word cards are a vital tool in early reading instruction for refining students' reading skills (Ernawati & Joko Raharjo, 2021).

Based on the results of previous research on multisensory strategies, which can serve as a relevant and practical backup to support early reading instruction. Similar research indicates that multisensory approaches are effective in developing early reading skills among first-grade elementary school students (Warmansyah, 2021). On the other hand, a different study reveals that the use of multisensory reading strategies can serve as an backup reading approach for teachers to enhance students' early reading skills (Wulandari & Pujaningsih, 2025). In line with this, other research has also demonstrated that project-based multisensory learning can address early reading difficulties and create a more Exhaustive and effective learning environment in elementary schools (Jenahut et al., 2025). Furthermore, supported by other studies, it has been shown that multisensory strategies can improve early reading skills in young children compared to conventional methods (Maulani et al., 2025).



Based on the results of previous research, multisensory strategies have been proven to be effective in improving the initial reading ability of elementary school students. However, these studies generally only focus on the application of multisensory strategies as a learning approach without integrating them specifically with picture word card media designed according to the characteristics of elementary school early grade students. In addition, research on the application of multisensory strategies assisted by picture word cards in grade I students of SDN Pelandakan 1 has not been carried out. In fact, based on the results of observations at the school, it was still found that students had difficulty recognizing letters, reading syllables, reading words, and reading simple sentences, while the learning strategies used by teachers were still less varied. This condition shows the need for more innovative learning strategies that are in accordance with the learning characteristics of students, so this research has urgency to be carried out.

The novelty of this research lies in the application of multisensory strategies combined with picture word card media as a unit in early reading learning. The integration of strategies and media is expected to be able to optimize the involvement of various student senses (visual, auditory, tactile, and kinesthetic) while providing a more concrete and interesting learning experience than the use of multisensory strategies alone. Thus, this research is expected to provide an effective learning alternative to improve the initial reading ability of elementary school students.

Based on this description, this study aims to (1) describe the application of multisensory strategies assisted by picture word card media in elementary school students' initial reading learning, and (2) determine the improvement of elementary school students' initial reading skills after the implementation of multisensory strategies assisted by picture word card media.

RESEARCH METHODOLOGY

This study employed a quantitative approach using a quasi-experimental design. The study involved one experimental group and aimed to examine the effectiveness of a multisensory strategy assisted by picture word cards in improving elementary school students' early reading skills. A One-Group Pretest-Posttest Design was used as the research design. In this design, the participants were first administered a pretest to assess their initial early reading skills. They then received the treatment in the form of the implementation of a multisensory strategy assisted by picture word cards. After the treatment, the participants completed a posttest to measure the improvement in their early reading skills. The research design is presented as follows:

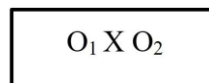


Figure 1. One Group Pretest-Posttest Research Design

Notes:

O1 = Pretest before the interference.

X = Interference involving multisensory learning strategies aided by illustrated word cards.

O2 = Posttest after the interference.

Source: (Fasya et al., 2024)

Population and Sample

The populace of this study consists of all first-grade students at SDN Pelandakan 1, located at Jalan Kalitanjung No. 23, Karyamulya, Kesambi District, Cirebon City, West Java, totaling 29 students, containing a sample of 11 students. Data collection was conducted using purposive sampling. Primary data were obtained directly by the researcher through field data collection activities.

Table 1. Participant Criteria

School Name	Grade	Total number of students		Number of students Reading difficulties at the beginner level			Percentage (%)	
		P	L	Σ	P	L	Σ	
SDN Pelandakan 1	I	11	18	29	2	9	11	37,93%

Data Collection Methods

The study gathered data through the administration of a pretest, a posttest, and classroom observations. These tests were used to measure students' early reading skills before and after the interference. Before the interference, students first took a pretest to assess their introductory early reading skills. Next, students received the treatment, which involved the application of multisensory strategies aided by picture word cards in early reading instruction. After the treatment was administered, the students took a post test to assess to enhance in their early reading skills following the implementation of the strategy. This study also employed observation techniques to assess student engagement during instruction, monitor student responses, and evaluate integration of the multisensory strategy with the assistance of picture word cards. The following observation criteria were used in this study.

Table 2. Observation Criteria

Aspect	Indicators
Visual	Ability to identify and understand visual symbols (letters, words, and pictures).
Audio	Ability to identify and respond to language sounds.
Kinesthetic	Student engagement in physical activities that support reading instruction.
Tangibly perceived	Ability to learn through touch and manipulation of learning materials.
Emotional Engagement	Students' interest, enthusiasm, and participation in learning.
Development of Early Reading Skills	Students are able to identify letters and letter sounds, read phonological units, words, and simple sentences, and demonstrate fluency in reading.

Source: (Syerlyana et al., 2025)

The observational data were analyzed using descriptive statistics to provide a general description of students' learning activities during the implementation of the multisensory strategy assisted by picture word cards. Students' learning activities were assessed using a Likert scale, and the scores were subsequently converted into percentages. The percentage scores were then classified into four categories: very active, active, moderately active and less active. The criteria used to classify students' learning activities are presented in Table 3.



Table 3. Criteria for Student Learning Activity Levels

Percentage	Classification
81% - 100%	Very Active
61% - 80%	Active
41% - 60%	Moderately Active
≤ 40	Less Active

Source: (Nurusiah et al., 2024)

The research instruments were validated to ensure their validity and suitability before being used for data collection. The validation process involved an expert lecturer in the field of education and an experienced elementary school teacher as a practitioner. The validation results were calculated as percentages and interpreted based on the validity criteria presented in Table 4.

Table 4. Validity Criteria

Percentage Scale	Classification
81.00% -100%	Highly acceptable without revision
61.00% - 80.00%	Acceptable with revision
41.00% - 60.00%	Fairly acceptable; not recommended for use
21.00% - 40.00%	Unacceptable; cannot be used
00.00% - 20.00%	Completely unacceptable.

Source: (Ramli et al., 2024)

The research instruments were validated to ensure their validity and suitability before being used for data collection. The validated instruments included the teaching module, the early reading skills test, and the classroom observation sheet. The validation results were calculated as percentages and interpreted based on predetermined validity criteria.

Data Analysis Techniques

The data were analyzed quantitatively using IBM SPSS Statistics software. Descriptive statistics were used to summarize the data, while the Shapiro–Wilk normality test was conducted to examine the distribution of the data. A paired-sample t-test was performed to determine whether there was a significant difference in students' early reading skills before and after the intervention. In addition, N-Gain analysis was used to measure the level of improvement in students' early reading skills following the intervention.

RESULTS AND DISCUSSION

The results of this study provide information on the implementation of a multisensory strategy assisted by picture word cards among first-grade students at SDN Pelandakan 1. The data were collected through several stages, beginning with the validation of the research instruments. The validated instruments included the teaching module, the early reading skills test, and the classroom observation sheet. The validation process was conducted by an expert lecturer and an experienced elementary school teacher to ensure the suitability of the instruments before they were used in the study. The results of the instrument validation are presented in Table 5.



Table 5. Validation Result

No	Instrument	Feasibility Score		Average Score	Category
		Faculty	Teacher		
1.	Teaching Module	95%	83,75%	89,38%	Highly Feasible
2.	Early Reading Test	85%	88,33%	86,67%	Highly Feasible
3.	Classroom Observation	90%	95%	92,5%	Highly Feasible
	Average Rating	90%	89,03%	89,52%	Highly Feasible

$$\text{Percentage} = \left(\frac{\text{score obtained}}{\text{maximum score}} \right) \times 100\%$$

Based on the data presented in Table 5, the overall average validation score of the research instruments was 89.52%, which falls into the highly acceptable category. The teaching module obtained a validation score of 89.38%, the early reading skills test obtained 86.67%, and the classroom observation sheet obtained 92.50%. All three instruments were classified as highly acceptable, indicating that they were suitable for use in the study without requiring major revisions.

This study had two objectives. The first was to describe the implementation of a multisensory strategy assisted by picture word cards in early reading instruction for elementary school students. To address this objective, classroom observations were conducted to evaluate students' engagement during learning activities involving the multisensory strategy and picture word cards. The results of the classroom observations are presented in Table 6.

Table 6. Observation Assessment Results

No.	Name	Total Score	Percentage	Category
1.	Student 1	56	100%	Very Active
2.	Student 2	56	100%	Very Active
3.	Student 3	40	71,43%	Active
4.	Student 4	44	78,57%	Active
5.	Student 5	50	89,29%	Very Active
6.	Student 6	55	98,21%	Very Active
7.	Student 7	54	96,43%	Very Active
8.	Student 8	53	94,64%	Very Active
9.	Student 9	56	100%	Very Active
10.	Student 10	54	96,43%	Very Active
11.	Student 11	50	89,29%	Very Active

$$\text{Percentage} = \left(\frac{\text{score obtained}}{\text{maximum score}} \right) \times 100\%$$

Table 7. Summary of Observation Results

Classification	Total number of students	Percentage
Very Active ($\geq 81\%$)	9	81,82%
Active (61% - 80%)	2	18,18%

Based on the results presented in Table 7, observations of the 11 participants indicated that the majority of students demonstrated a very high level of engagement throughout the learning process. Of the 11 students, 9 students (81.82%) were classified as very active, with observation scores of 81% or higher, while 2 students (18.18%) were classified as active, with scores ranging from 61%-80%. No students were classified as less active or inactive, indicating that all participants were actively engaged in the learning activities.



These findings suggest that the implementation of a multisensory strategy assisted by picture word cards successfully promoted students' active participation during early reading instruction, thereby supporting the development of their early reading skills.

The second objective of this study was to determine whether the implementation of a multisensory strategy assisted by picture word cards improved students' early reading skills. Students' improvement was evaluated by comparing their pretest and posttest scores, which reflected their early reading performance before and after the intervention. The results of the assessment of students' early reading skills are presented in Table 8.

Table 8. Early Reading Test Assessment

No	Student Name	Reading Assessment Aspects/Indicators																							
		Pretest										Score		Posttest										Score	
		A	B	C			D			E					A	B	C			D			E		
1.	Student 1	4	3	2	2	2	2	2	2	3	2	24	4	4	4	4	4	4	4	4	4	4	3	39	
2.	Student 2	4	4	3	3	2	2	2	3	3	2	28	4	4	4	4	4	4	4	4	4	4	4	40	
3.	Student 3	1	1	1	1	1	1	1	1	1	1	10	4	3	4	4	3	3	3	3	3	2	2	31	
4.	Student 4	4	4	1	1	1	1	1	1	1	1	16	4	4	3	3	3	3	3	3	3	3	2	31	
5.	Student 5	2	2	1	1	1	1	1	1	1	1	12	4	3	4	4	4	4	4	3	3	3	3	36	
6.	Student 6	2	2	3	3	2	2	2	3	2	2	23	4	4	4	4	4	4	4	4	4	4	3	39	
7.	Student 7	4	3	2	2	3	2	2	1	1	1	21	4	3	4	4	4	3	4	3	3	3	3	35	
8.	Student 8	4	3	2	2	2	2	2	2	3	2	24	4	4	4	4	4	4	4	3	4	3	3	38	
9.	Student 9	4	3	3	3	2	2	2	2	3	2	26	4	4	4	4	4	4	4	4	4	4	4	40	
10.	Student 10	4	2	2	2	2	2	1	1	1	1	18	4	4	4	4	4	4	4	3	3	3	3	37	
11.	Student 11	4	2	1	1	1	1	1	1	1	1	14	4	4	4	4	4	3	3	3	3	3	3	35	
Assessment Indicators Description:												Scoring:													
A = Reading Vowels												4 = Reads very accurately													
B = Reading Consonants												3 = Reads accurately													
C = Reading Phonological units												2 = Reads fairly accurately													
D = Reading Words												1 = Reads inaccurately													
E = Reading Sentences																									

Based on Table 8, it can be seen that there is a difference in students' initial reading ability scores during the pretest and posttest. To provide a clearer picture of the change in the score of each student, the pretest and posttest result data is also presented in the form of a comparison graph as follows.

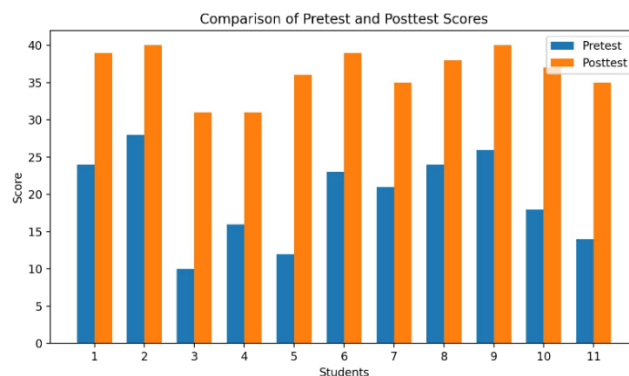


Figure 2. Pretest and Posttest Score Comparison

Based on Figure 2, it can be seen that the posttest scores of all students have increased compared to the pretest scores. The improvement showed that after the implementation of the multisensory strategy assisted by picture word cards, students' initial reading ability experienced improvement in each individual. This graph visualization clarifies the results presented in Table 8, so that the changes in each student's score can be observed more easily.

The assessment of early reading skills in this study was based on several indicators that reflect students' early reading abilities. These indicators included the ability to read vowels, consonants, syllables, words, and simple sentences (Muammar, 2020). Based on the assessment results, students showed improvement across all indicators following the implementation of the multisensory strategy assisted by picture word cards. These findings indicate that the strategy made a positive contribution to improving students' early reading skills.

Students' early reading skills before and after the implementation of the multisensory strategy assisted by picture word cards were analyzed using descriptive statistics. This analysis was conducted to provide a general overview of the changes in students' early reading scores between the pretest and posttest. The results of the descriptive statistical analysis are presented in Table 9.

Table 9. Descriptive Statistics for Pretest and Posttest Scores

Statistic	Pretest	Posttest
N	11	11
Mean	19,64	36,36
Median	21,00	37,00
Std. Deviation	6,005	3,171
Variance	36,055	10,055
Minimum	10	31
Maximum	28	40
Range	18	9

Based on the results presented in Table 9, students' early reading skills showed a significant improvement following the implementation of the multisensory strategy assisted by picture word cards. The mean pretest score was 19.64, which increased to 36.36 on the posttest. Similarly, the median score increased from 21.00 to 37.00. The minimum score improved from 10 on the pretest to 31 on the posttest, while the maximum score increased from 28 to 40. In addition, the standard deviation decreased from 6.005 to 3.171, indicating that students' posttest scores were more consistent than their pretest scores. Overall, these findings demonstrate a substantial improvement in students' early reading skills following the implementation of the multisensory strategy assisted by picture word cards.

A normality test was conducted to determine whether the pretest and posttest scores were normally distributed, as this is a prerequisite for applying parametric statistical tests. Since the sample size was relatively small ($n = 11$), the Shapiro–Wilk test was used to assess the normality of the data. The data were considered to be normally distributed if the significance value ($p > 0.05$).

Table 10. Normality Test Results

Variable	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.167	11	.200*	.947	11	.604
Posttest	.152	11	.200*	.897	11	.170



Based on the results presented in Table 10, the Shapiro–Wilk test produced significance values of 0.604 for the pretest and 0.170 for the posttest. Since both values were greater than 0.05, the pretest and posttest data were considered to be normally distributed. Therefore, the assumption of normality was satisfied, allowing further analysis to be conducted using the paired-sample t-test.

Table 11. Results of the Paired-Sample t-Test

Pair	Mean Difference	t hitung	df	Sig. (2-tailed)
Pretest – Posttest	-16,727	-14,412	10	< 0,001

The results of the paired-sample t-test indicated a mean difference of -16.727 , a t-value of -14.412 , and a two-tailed significance value of $p < 0.001$. Since the significance value was less than 0.05, a statistically significant difference was found between the students' pretest and posttest scores, indicating that their early reading skills improved after the implementation of the multisensory strategy assisted by picture word cards.

After confirming the existence of a statistically significant difference between the pretest and posttest scores, an N-Gain analysis was conducted to determine the level of improvement in students' early reading skills following the intervention. The results of the N-Gain analysis are presented in Table 12.

Tabel 12. Results of the N-Gain

Statistic	N	Min.	Max.	Mean $\pm$ SD	Category
N-Gain Score	11	0,63	1,00	$0,8441 \pm 0,119$	High
N-Gain Persen	11	62,50%	100,00%	$84,41\% \pm 11,91$	High

Based on the results presented in Table 12, the mean N-Gain score was 0.8441, equivalent to 84.41%. The lowest N-Gain score was 0.63, while the highest was 1.00. According to the N-Gain classification, the average improvement in students' early reading skills was categorized as high. These findings indicate that students' early reading skills improved substantially following the implementation of the multisensory strategy assisted by picture word cards.

Overall, the findings demonstrate that the implementation of a multisensory strategy assisted by picture word cards effectively improved the early reading skills of elementary school students. This was evidenced by the increase in students' reading scores from the pretest to the posttest, as well as the results of the statistical analyses, which confirmed a statistically significant improvement in their early reading skills.

Evidence from this study suggests that the use of a multisensory strategy assisted by picture word cards in early reading instruction was successful. Throughout the learning process, students demonstrated high engagement in every activity designed to incorporate visual, auditory, kinesthetic, and tactile elements. Students not only looked at the picture word cards but also listened to the pronunciation of letters and words, repeated them aloud, and wrote down the words they learned. The engagement of multiple senses helped students establish connections between letter shapes, letter sounds, and word meanings, making the reading process simpler to understand. This is consistent with research (Primasari & Supena, 2021) which states that multisensory strategies utilize visual, auditory, kinesthetic, and tangibly perceived aspects to reinforce students' understanding of letters and their sounds.



In addition, the use of picture word cards helps students understand early reading material in a more concrete way. The pictures on the cards make it simpler for students to connect letter and word symbols with objects they are already familiar with. Picture word cards can help students identify letters and words and enrich their vocabulary through the connection between pictures and text (Gading et al., 2019). Thus, students not only memorize letters and words but also understand the meanings behind them.

During the visual learning stage, students observe picture word cards, which makes it simpler for them to identify letter shapes, words, and the connection between pictures and written words. In this activity, students learn to identify letter shapes, words, and the association between pictures and printed words. This activity helps students gain a more concrete understanding of the words they are learning, consequently facilitating the process of recognizing letter symbols and words. The ability to identify letter shapes and connect pictures with words is the foundation of early reading (Kartika & Putri, 2023).

In the auditory learning stage, students are asked to listen to the enunciation of letters and words modeled by the teacher and then repeat them over and over. This activity helps students identify the relationship between letter symbols and the sounds they represent. The ability to identify letter sounds is a crucial foundation for early reading, as students need to understand how to pronounce the symbols they read before they can read whole words. The activity of listening to and repeating letter sounds repeatedly can strengthen students' phonological awareness, consequently making the reading process more effective (Junilasa et al., 2020).

Next, the kinesthetic stage was implemented through activities such as arranging letters to form words and rewriting the letters or words that had been learned. These activities helped students understand the sequence of letters within words while reinforcing their memory of letter forms through physical movement. Meanwhile, the tactile stage involved activities such as holding, touching, and manipulating letter cards or words that had been arranged. By incorporating movement and touch into the learning process, students gained a more concrete learning experience, enabling them to process information not only through visual and auditory input but also through direct physical interaction. Learning experiences that integrate movement and touch have been shown to strengthen students' memory of letter forms and improve their ability to recognize and construct words (Susanto & Nugraheni, 2020).

In addition to sensory engagement, the students also demonstrated strong interest and enthusiasm throughout the lesson. Most students paid close attention to the lesson, participated in the activities assigned by the teacher, and showed interest in using picture word cards. These observations indicate that multisensory strategies can create a more engaging and delightful learning environment. Learning that engages multiple senses is known to increase students' willpowers and engagement during the learning process (Triana & Minsih, 2026). Student engagement during the learning process also supports the improvement of early reading skills. After participating in the lessons, students demonstrated improved ability in alphabet recognition and letter sounds, reading phonological units and straightforward language, and reading more fluently compared to before the interference. These developments indicate that learning experiences that engage multiple senses help



students better understand the stages of early reading. Early reading skills do indeed develop gradually, starting with the recognition of letters, phonological units, and words, and progressing to simple sentences (Meilina et al., 2023).

The implementation of a multisensory strategy using picture word cards demonstrated a high level of student engagement during the learning process. Observation scores showed that 81.82% of students fell into the “very active” category. This indicates that the majority of students were directly engaged in each learning activity. The high level of student engagement indicates that multisensory learning is capable of creating an engaging and delightful learning atmosphere, consequently encouraging students to be actively involved in learning activities. This finding aligns with research stating that learning involving variants sensory activities is known to increase student willpowers and participation because it make availables a more meaningful learning experience compared to simple, passive learning (Ummah et al., 2024).

This improvement in early reading skills was supported As demonstrated by the Paired Sample t-Test results, the difference was statistically significant ($p < 0.001$). These results indicate that According to the Paired Sample t-Test results, a significant difference was found in students’ early reading skills before and after the application of the multisensory strategy using picture word cards. Thus, the improvement in reading skills achieved by the students is attributed to the learning strategy implemented during the research. These findings indicate that the integration of visual, auditory, kinesthetic, and tangibly perceived aspects in learning contributes to the enhancement of students’ early reading skills. In addition to demonstrating a significant difference, the multisensory strategy aided by picture word cards was also proven effective in refining early reading skills. This is evidenced by the N-Gain analysis result of 0.8441, which is categorized as high. These results indicate that the improvement in students’ reading skills is in addition to statistically significant but also highly effective. Multisensory learning is known to enhance information retention and help students understand material more quickly because information is processed simultaneously through variants sensory channels (Chandrasekaran, 2017).

Thus, the results of this study indicate that the implementation of a multisensory strategy using picture word cards in Indonesian language instruction in the first grade at SDN Pelandakan 1 yielded positive results in refining students’ early reading skills. This strategy not only played a role in refining students’ educational attainments but also fostered active engagement, built self-confidence, and increased students’ interest in the learning process (Vina & Endah, 2025). The study results show that the implementation of multisensory strategies that integrate visual, auditory, kinesthetic, and tactile perceived aspects can help students understand the connection between letters, sounds, and words more effectively. In addition, the use of picture word cards makes learning more concrete and engaging, consequently helping students develop their early reading skills. The implication of this study is that multisensory strategies supported by picture word cards can be used as a backup method for teaching Indonesian in the lower grades of elementary school to help improve students’ early reading skills.

CONCLUSION



This study, entitled "The Application of a Multisensory Strategy Using Picture Word Cards to Improve Early Reading Skills in Elementary School Students," aimed to describe the implementation of a multisensory strategy assisted by picture word cards in early reading instruction and to examine its effect on elementary school students' early reading skills. The findings indicate that the implementation of the strategy, which integrates visual, auditory, kinesthetic, and tactile learning activities, successfully promoted students' active participation during the learning process, with 81.82% of the students classified as very active.

Furthermore, the multisensory strategy assisted by picture word cards was found to significantly improve students' early reading skills. This improvement was reflected in the increase in the mean early reading score from 19.64 on the pretest to 36.36 on the posttest. The paired-sample t-test revealed a statistically significant difference between students' early reading skills before and after the intervention ($p < 0.001$), while the N-Gain score of 0.8441 was classified as high. Therefore, the implementation of a multisensory strategy assisted by picture word cards is effective in improving the early reading skills of first-grade elementary school students.

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