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Melodic Literacy: Enhancing Word Recognition Through the Singing Method

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ABSTRAK. *Kemampuan mengenal kata merupakan dasar penting dalam literasi awal. Namun, sebagian anak masih mengalami kesulitan dalam menghubungkan bunyi bahasa atau fonem dengan bentuk huruf atau grafem. Penelitian ini bertujuan untuk meningkatkan kemampuan mengenal kata pada anak usia 5–6 tahun melalui metode bernyanyi. Penelitian ini menggunakan desain Penelitian Tindakan Kelas (PTK) kolaboratif yang dilaksanakan dalam dua siklus. Data diperoleh dari 22 anak melalui observasi partisipatif dan penilaian unjuk kerja. Kebaruan penelitian ini terletak pada pemanfaatan pengulangan melodi dan ritme sebagai strategi mnemonik untuk membantu anak mengingat serta menghubungkan bunyi kata dengan bentuk tulisannya. Hasil penelitian menunjukkan adanya peningkatan yang signifikan. Pada kondisi awal, hanya 9% anak yang mencapai kategori Berkembang Sesuai Harapan (BSH). Setelah tindakan pada Siklus I, jumlah anak yang mencapai kategori BSH meningkat menjadi 81,8%. Pada akhir Siklus II, sebanyak 95,5% anak mencapai kategori Berkembang Sangat Baik (BSB), sedangkan 4,5% lainnya berada pada kategori BSH. Temuan ini menunjukkan bahwa metode bernyanyi efektif dalam mengurangi hambatan afektif anak, seperti rasa cemas atau kurang percaya diri, sekaligus memperkuat daya ingat kosakata dalam jangka panjang. Dengan demikian, penelitian ini dapat menjadi acuan praktis bagi pendidik dalam menerapkan strategi literasi multisensori yang interaktif untuk mendukung perkembangan kognitif anak secara menyeluruh.*

Kata Kunci : *Metode Bernyanyi; Mengenal Kata; Pembelajaran Interaktif*

ABSTRACT. *Word recognition is a key foundation of early literacy. However, many children still find it difficult to connect speech sounds, or phonemes, with written symbols, or graphemes. This study aimed to improve word recognition skills in children aged 5–6 years through a singing method. The study employed a collaborative Classroom Action Research (CAR) design conducted in two cycles. Data were collected from 22 children through participatory observation and performance-based assessment. The main novelty of this study lies in the use of repeated melodies and rhythms as mnemonic tools to help children link the sounds of words with their written forms. The findings showed a significant improvement in children's word recognition skills. At baseline, only 9% of the children reached the Developing as Expected (BSH) level. After the intervention in Cycle I, this percentage increased to 81.8%. By the end of Cycle II, 95.5% of the children had reached the Very Well Developed (BSB) level, while the remaining 4.5% had reached the BSH level. These results indicate that the singing method is effective in reducing children's affective barriers, such as anxiety and lack of confidence, while also strengthening long-term vocabulary retention. Therefore, this study offers a practical framework for educators to implement interactive, multisensory literacy strategies that support children's holistic cognitive development.*

Keyword : *Singing Method; Word Recognition; Interactive Learning*

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INTRODUCTION

Early childhood education represents a crucial investment in human resource development, particularly during the "golden age" from birth to age 6 [1]–[3]. At this stage, children undergo rapid neurological growth that influences their cognitive, social-emotional, and physical development [4]–[6]. Ideally, children aged 5–6 years are expected to develop adequate word recognition skills, as these form an important foundation for early literacy [7]–[9]. This developmental achievement plays a significant role in supporting later academic success and effective communication [8], [9]. Therefore, a language-rich environment and interactive stimulation are essential to help children recognize letters and relate them to meaningful words [9]–[11].

Initial observations in the TK B1 class showed that the existing conventional teaching approach did not adequately support children's phonological–orthographic awareness. All students failed to meet the expected competency standards. In addition, interviews with teachers and parents revealed a recurring pattern of literacy anxiety. Children appeared hesitant and often withdrew from activities involving written words. This behavioral resistance was also supported by quantitative data showing that 91% of students had difficulty recalling the taught vocabulary. These findings indicate an urgent need for a multisensory intervention [12]. Therefore, the singing method is proposed not merely as an alternative strategy, but as a necessary pedagogical shift to reduce the affective filter, or psychological barrier, that was clearly observed during the preliminary assessment phase.

Previous studies have mainly explored the general benefits of music in early childhood education, particularly in improving vocabulary development and learning motivation [13]–[15]. Other studies have used pictorial word cards to strengthen children's visual word recognition [9]. However, a conceptual gap remains in understanding how singing can serve as a specific mnemonic tool for linking phonological sounds to orthographic symbols [16]. Most existing research focuses on general language acquisition rather than the cognitive process that links hearing a word to recognizing its written form, especially within a Classroom Action Research (CAR) framework. This study addresses that gap by positioning melodic repetition as a form of structural scaffolding for phonological–orthographic mapping. This approach offers a distinctive methodological contribution, as it remains underrepresented in current literacy intervention research.

To address this gap, the present study proposes applying the singing method as a holistic, multisensory approach. Singing functions as an effective mnemonic device by using rhythm and melody to support the encoding of word-based information into long-term memory. When combined with visual media such as flashcards, the learning process shifts from a passive, conventional model to an interactive, enjoyable one. This approach is consistent with Vygotsky's sociocultural theory, which emphasizes that children learn through social interaction and scaffolded support, including rhythmic guidance [4], [10], [17]. It is expected that this method will not only enhance cognitive learning outcomes but also foster children's courage and confidence in using language.

This study aims to examine the effectiveness of the singing method in improving word recognition skills among children aged 5–6 years. Although music is known to create a positive learning atmosphere [18], current pedagogical practice still lacks a structured framework that uses singing as a specific mnemonic tool for phonological–orthographic mapping. More specifically, this study analyzes the development of children's word recognition skills across two research cycles and identifies factors that support or hinder the implementation of the singing method. The study contributes by offering a Classroom Action Research (CAR)-based framework that demonstrates how melodic tempo can serve as adaptive scaffolding to help children connect sounds with written symbols. Ultimately, this study seeks to provide educators with a practical approach for optimizing early literacy learning through the creative integration of music. In doing so, it addresses the limitations of conventional, unimodal instruction reported in previous studies.

METHOD

The methodology of this study is designed to provide a systematic framework for examining and addressing the challenges of early word recognition in young learners. This research adopts a pragmatic approach that connects theoretical pedagogical concepts with classroom practice, ensuring that the intervention is both scientifically grounded and practically relevant. By emphasizing the integration of auditory and visual stimuli through the singing method, the study seeks to create a meaningful learning experience that enhances children's language abilities. To achieve these objectives, the following sections describe the main components of the research, including the selection of the action research model and the techniques used for data analysis and validation.

This study employed Classroom Action Research (CAR), or Penelitian Tindakan Kelas (PTK), as the research design. This design was chosen because it addresses real problems that emerge directly in the classroom, particularly children's difficulties in word recognition. Unlike traditional experimental research, which often emphasizes generalizability through strict control, CAR was more appropriate for this study because it allows the researcher to act as a practitioner focused on immediate pedagogical improvement. CAR also supports a collaborative and reflective process, in which the researcher is directly involved in planning, implementing, observing, and reflecting on the actions carried out. This flexibility is especially important in early childhood education. It allows the intervention to be adjusted in real time to children's developmental needs, such as adjusting the musical tempo or providing additional scaffolding during the learning process.

The study's structural framework adopts the spiral model proposed by Kemmis and McTaggart. As presented in Figure 1, this model consists of four interrelated stages in each Cycle: planning, acting, observing, and reflecting. 1). In the planning stage, the researcher identifies the main problems and prepares the necessary instructional materials, such as Lesson Plans (RPPs), song lyrics containing target words, and visual media. 2). The acting stage involves implementing the singing method in the classroom,

during which the teacher guides children to recognize words through melodic repetition and interactive activities. 3). In the observing stage, the researcher systematically collects data on students' participation, enthusiasm, and cognitive development using validated observation sheets and performance rubrics. 4). The reflecting stage focuses on analyzing the collected data to determine whether the success indicators have been achieved. The findings from this reflection are then used to improve the planning for the next Cycle.

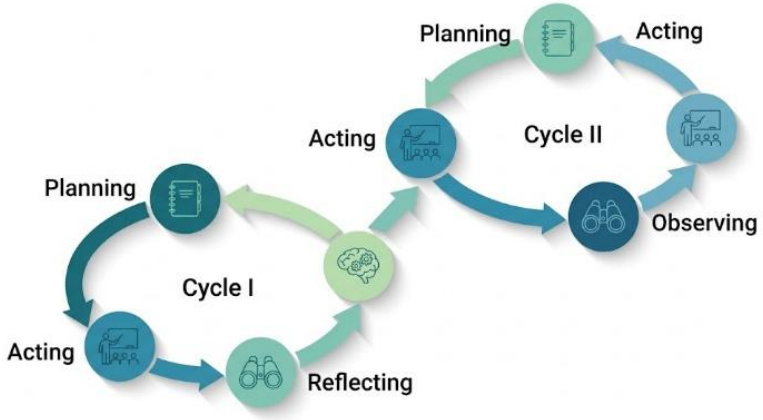

Figure 1. Research Flow (Spiral of Action Research)

The systematic nature of this study is illustrated in the spiral flowchart in Figure 1, which presents the iterative stages of the action research process. The study was conducted in two intensive cycles to ensure the reliability of the findings and to achieve the predetermined success indicators. The flowchart also emphasizes the reflective feedback loop between cycles. For example, the identification of a need for slower musical tempos during the Reflecting phase of Cycle I directly shaped the Planning phase of Cycle II. In addition, initial observations were conducted during the pre-cycle stage to establish baseline conditions, which served as a reference for evaluating the intervention's effectiveness across the research cycles. This systematic approach ensures that the findings are not only statistically meaningful but also practically useful for improving early childhood education practices.

The research was conducted at TK Santa Maria Surabaya, an early childhood education institution located in East Java, Indonesia. This site was selected because the researcher was directly involved as an educator at the school, enabling the intervention to be smoothly integrated into the existing curriculum. The study was conducted during the Odd Semester of the 2025/2026 Academic Year over approximately 2 months. This duration included an initial baseline observation in the pre-cycle stage, followed by two full action research cycles, each lasting 30 days, to ensure a comprehensive evaluation of the singing method's effectiveness.

The participants in this study, the primary research subjects, were 22 children enrolled in the TK B1 class. The group consisted of both boys and girls aged 5 to 6, a developmental stage often regarded as a "golden age" for cognitive and linguistic development. These participants were selected because initial diagnostic assessments indicated a significant gap in their early literacy skills, particularly in word recognition. Observations further revealed that most of the children showed little interest in literacy

activities, had difficulty linking phonemes to graphemes, and were often hesitant or anxious when asked to identify written words.

In addition to the students, the researcher served as a participant-observer, directly implementing the singing method while documenting the learning process. To maintain the objectivity and validity of the observations, the researcher collaborated with a fellow teacher at TK Santa Maria Surabaya, who served as a peer observer. The collaborator played an important role in recording children's behavioral changes and engagement during the singing sessions while the researcher conducted the instruction. To strengthen the validity and depth of the data, parents and guardians were also involved as secondary informants. Through unstructured interviews, they provided contextual information about children's literacy behaviors and musical interests at home. This information supported a more comprehensive analysis of the factors influencing the intervention's success.

The research was carried out through a series of systematic stages, beginning with a preliminary study and followed by two intensive action cycles. Each Cycle consistently followed the four stages of planning, acting, observing, and reflecting to ensure a structured approach to improving the teaching and learning process.

Pre-Cycle (Initial Assessment): Before implementing the singing method, an initial assessment (pre-test) was conducted over 5 days to establish a baseline of the children's word recognition abilities. During this phase, 22 students were observed in their natural classroom setting while engaging in conventional literacy activities. The findings indicated a clear need for intervention: 91% of the students had not yet met the expected competency standards, with the majority still categorized as "undeveloped."

Cycle I: The first Cycle began with the planning stage, which involved preparing a Lesson Plan (RPP) that integrated musical elements into word recognition activities. The instruction focused on the theme of "My Environment" with sub-themes such as "Fruits" and "Common Household Objects" used to introduce basic target words. At this stage, simple and lively songs containing the target words were selected and adapted. Visual supports, including large flashcards with bold typography, were also prepared to strengthen the connection between sounds and written symbols. During the acting stage, which lasted 30 days, the researcher implemented the singing method as the main instructional strategy. Each session began with a musical opening to increase children's enthusiasm. This was followed by a sing-and-point activity, in which the teacher demonstrated the relationship between the song lyrics and the corresponding flashcards. The children were then encouraged to participate in interactive games, such as matching song parts to the appropriate word cards. The observing stage was carried out alongside the action stage and focused on children's engagement and cognitive development. A validated performance rubric was used to assess their ability to recognize and recall the target words. Finally, the reflecting stage involved analyzing the collected data to evaluate the effectiveness of Cycle I. Although 81.8% of the children met the minimum Developing as Expected (BSH) criterion, the reflection showed that four students still needed more individualized support, mainly because some songs had tempos that were too fast for them.

Cycle II: The second Cycle was conducted for another 30 days to optimize the outcomes of Cycle I. In this Cycle, the learning theme shifted to "Nature" with a specific focus on the "Animal Kingdom." This theme was used to introduce more complex target words while maintaining the interactive singing routine. The planning stage was revised based on the reflections from Cycle I. The main improvement involved providing additional scaffolding through slower-tempo songs and individualized word cards for students who still experienced difficulties. During the acting stage, the interactive singing routine was continued, while a wider variety of games was added to maintain children's interest and participation. The observing stage showed clear improvements in children's confidence and accuracy in recognizing target words. Finally, the reflective stage indicated that all students had met or exceeded the expected criteria. This confirmed that the intervention successfully achieved the study's objectives.

To ensure a comprehensive and valid evaluation of the intervention, this study employed a triangulated data collection approach, combining multiple techniques and carefully designed instruments. These instruments were primarily intended to capture both the learning process, including affective and behavioral changes, and the learning outcomes, particularly cognitive achievement in word recognition. The first data collection technique employed in this study was participatory observation, in which the researcher served as an observer during the implementation of the singing method. The instrument used was a structured observation sheet designed to monitor qualitative indicators, including the children's enthusiasm during singing sessions, their level of active participation in matching lyrics with word cards, and their confidence in attempting to identify words without hesitation. These observations provided essential data on the behavioral changes and levels of interest shown by the 22 students throughout both research cycles.

The second, and most important, technique used to measure cognitive development was performance assessment (unjuk kerja). For this purpose, the researcher developed a validated performance assessment rubric based on a four-point scale (1–4) to evaluate four specific indicators of word recognition: 1). Recognizing simple words refers to the child's ability to identify basic target words. 2). Identifying identical words refers to the ability to distinguish and match similar word forms. 3). Remembering taught vocabulary concerns the retention of words learned through songs. 4). Using words in simple sentences refers to the ability to apply recognized words in a functional context.

The scoring criteria in this rubric followed the standard categories used in early childhood assessment: a score of 4 (Very Well Developed/BSB) was assigned to children who demonstrated independent mastery; a score of 3 (Developing as Expected/BSH) was given to those who achieved mastery with minimal assistance; a score of 2 (Starting to Develop/MB) was used for children who required considerable support; and a score of 1 (Not Yet Developed/BB) was assigned to those who were unable to perform the task.

Furthermore, unstructured interviews were conducted with both students and parents to obtain richer qualitative data. The interview guide included questions for the

children about their feelings toward the singing activities, as well as questions for parents regarding the children's interest in literacy at home. In addition, documentation was used to collect physical evidence, such as photographs of learning activities and short video recordings, which served to cross-check the data obtained from the observation sheets and performance assessments. This combination of instruments ensured that the research findings were robust and reliable, supported by multiple data sources.

The success of this classroom action research was determined through both qualitative and quantitative indicators. Qualitatively, the study was considered successful if the children showed a significant increase in learning interest, as reflected in their active participation, enthusiasm during singing activities, and greater confidence in engaging with word-related tasks. Quantitatively, the main indicator of success was set at a relatively high standard: the study would be considered successful if at least 80% of the 22 students achieved the Very Well Developed (BSB) category on the final performance assessment. This benchmark was established to ensure that the singing method effectively benefited the majority of the class and provided a strong foundation for the children's transition to formal primary education.

Data analysis in this study employed a mixed-methods approach, combining descriptive qualitative analysis with simple quantitative calculations to provide a comprehensive understanding of the intervention's impact. Qualitative data obtained from participatory observation sheets, field notes, and interviews were analyzed through the processes of data reduction, data display, and conclusion drawing. This approach enabled the researcher to identify behavioral patterns, such as the transition from passive to active learning, and to document the specific scaffolding strategies most effective for children with learning difficulties.

Quantitative data obtained from the performance assessment rubrics, which used a 1–4 scale, were analyzed to determine the percentage of student achievement. A percentage formula was applied to measure both individual and group progress across the research cycles:

$$P = \frac{obtained\ score}{maximum\ score}\ x\ 100\%$$

The resulting percentages were then classified according to the following criteria:

1. 80%–100% as Very Well Developed (BSB / 4 stars),
2. 56%–79% as Developing as Expected (BSH / 3 stars),
3. 26%–55% as Starting to Develop (MB / 2 stars), and
4. 0%–25% as Not Yet Developed (BB / 1 star).

By comparing results from the pre-cycle baseline, Cycle I, and Cycle II, the researcher quantitatively demonstrated the effectiveness of the singing method in improving word recognition skills. To maintain the integrity of the study, data validity was ensured through source triangulation and continuous peer reflection throughout the research process.

RESULTS AND DISCUSSIONS

This section presents the findings of the two cycles of Classroom Action Research (CAR) conducted at TK Santa Maria Surabaya to improve children's word recognition skills through the singing method. The results include both quantitative data from performance assessments and qualitative insights from observations and interviews. By systematically describing the progression from the pre-cycle baseline to the final intervention in Cycle II, this section demonstrates the transformative effect of musical mnemonics on early literacy development. In addition, the discussion relates these empirical findings to established pedagogical theories to provide a deeper understanding of why and how the singing method functions as an effective scaffolding strategy for young learners. The following subsections present the students' statistical achievement and a comprehensive analysis of the factors that contributed to the study's success.

The results of this study are presented systematically to illustrate the progression of student achievement throughout the Classroom Action Research (CAR) process. The data are organized into four chronological phases: the pre-cycle baseline assessment, the implementation of Cycle I, the refinement stage in Cycle II, and the final comparative analysis of the results. The main focus of this section is to describe the development of students' word recognition abilities, which were measured through four key indicators: recognizing simple words, identifying identical words, remembering vocabulary, and using words in simple sentences. By presenting the findings in this way, the effectiveness of the singing method as a pedagogical intervention can be clearly demonstrated, showing the transition from initial literacy difficulties to the mastery of basic word recognition skills among the 22 participants.

Pre-Cycle Results, the pre-cycle phase was conducted to establish a baseline of the students' word recognition abilities before implementing the singing method. Observations were carried out over five instructional days at TK Santa Maria Surabaya, focusing on the 22 children in Class TK B1. The results of this initial assessment revealed a considerable gap in early literacy development. During the pre-cycle, most students showed limited interest in letter-based activities and substantial difficulty in associating phonological sounds with their corresponding written symbols. The quantitative data obtained from the pre-test confirmed that none of the students had achieved the minimum success criteria. The distribution of student achievement during this phase is presented in Table 1 below.

Table 1. Distribution of Student Word Recognition Achievement (Pre-Cycle)

Category	Scale	Indicator				Avg.
		I	II	III	IV	
Very Well Developed (BSB)	4	0%	0%	0%	0%	0%
Developing as Expected (BSH)	3	14%	9%	0%	14%	9%
Starting to Develop (MB)	2	32%	27%	14%	27%	25%
Not Yet Developed (BB)	1	55%	64%	86%	59%	66%
Total		**100%**	**100%**	**100%**	**100%**	**100%**

These findings indicate a serious pedagogical challenge, suggesting that the conventional teaching methods previously applied were not sufficiently effective in stimulating the children's cognitive interest and retention. The students often appeared

anxious or unmotivated when confronted with written words, resulting in a relatively static learning environment. Therefore, this baseline data served as the primary justification for implementing the singing method as an intervention, as it was designed to reduce anxiety and strengthen mnemonic encoding through rhythm and melody.

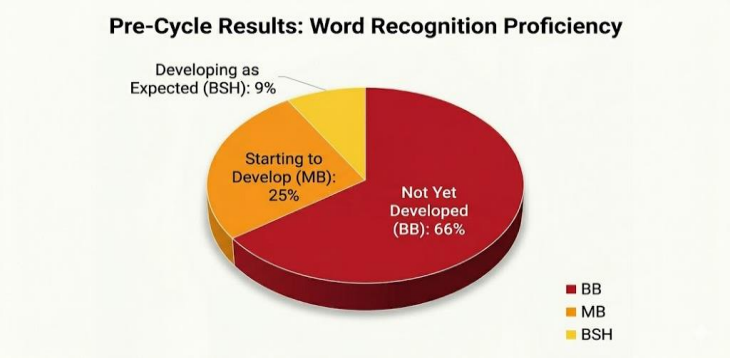

Figure 2. Pre-Cycle Results

Cycle I Results, the implementation of Cycle I introduced the singing method as the primary pedagogical intervention for 30 days. The main objective was to shift students from passive recognition to active engagement through melodic repetition and visual aids. The results showed a significant improvement in student performance compared with the baseline data. The children began to display higher levels of enthusiasm, and the "fear of letters" observed during the pre-cycle phase was largely replaced by curiosity and enjoyment during the musical activities. Quantitatively, a substantial improvement was observed across all indicators of word recognition. After the first Cycle, the majority of the students successfully moved into the Developing as Expected (BSH) category. The distribution of student achievement following Cycle I implementation is presented in Table 2.

Table 2. Distribution of Student Word Recognition Achievement (Cycle I)

Category	Scale	Indicator				Avg.
		I	II	III	IV	
Very Well Developed (BSB)	4	0%	0%	0%	0%	0%
Developing as Expected (BSH)	3	100%	86.3%	72.7%	68.2%	81.8%
Starting to Develop (MB)	2	0%	13.7%	27.3%	31.8%	18.2%
Not Yet Developed (BB)	1	0%	0%	0%	0%	0%
Total		**100%**	**100%**	**100%**	**100%**	**100%**

The reflection conducted at the end of Cycle I identified several specific challenges. Observations showed that although most children were able to follow the songs, the four students in the Starting to Develop (MB) category experienced difficulties with the fast tempo of certain melodies, which limited their ability to concentrate on the relationship between words and graphemic symbols. These students required more intensive support and a slower pace of instruction. In addition, the class as a whole had not yet reached the Very Well Developed (BSB) level, which indicates independent mastery of word recognition. Therefore, these findings led to the implementation of a second cycle with revised strategies, emphasizing slower-tempo songs and individualized scaffolding to address the remaining learning gaps.

Cycle II Results, Cycle II was implemented to address the pedagogical gaps identified in the first Cycle, with particular attention given to the four students who required more individualized scaffolding. The revised strategy involved using slower-

tempo songs and more intensive one-on-one interactions, supported by individualized word cards. During this phase, the classroom atmosphere became noticeably more conducive to learning, as the children had become familiar with the rhythmic routine and showed greater confidence in their literacy skills. The final assessment conducted at the end of Cycle II demonstrated a substantial improvement in students' competency. All 22 students demonstrated mastery in recognizing words, matching them to images, and recalling vocabulary with high accuracy. The quantitative results of Cycle II are presented in Table 3.

Table 3. Distribution of Student Word Recognition Achievement (Cycle II)

Category	Scale	Indicator				Avg.
		I	II	III	IV	
Very Well Developed (BSB)	4	100%	91%	91%	100%	95.5%
Developing as Expected (BSH)	3	0%	9%	9%	0%	4.5%
Starting to Develop (MB)	2	0%	0%	0%	0%	0%
Not Yet Developed (BB)	1	0%	0%	0%	0%	0%
Total		**100%**	**100%**	**100%**	**100%**	**100%**

This result substantially exceeded the initial success indicator of 80%. The students no longer required teacher prompts to recognize the target words; instead, they were able to identify and use the words independently in simple sentences. The qualitative improvement was equally significant. Students who had previously been hesitant, including the 18.2% identified in Cycle I, became more active and confident during the singing sessions. The slower tempo in this Cycle enabled them to coordinate their visual attention with the lyrics' auditory cues, thereby strengthening their phonological–orthographic awareness. These results confirm that the singing method, when adjusted to children's individual learning pace, is a highly effective strategy for promoting full literacy readiness in early childhood education. Accordingly, the study was concluded at the end of Cycle II because all research objectives had been achieved.

Comparison of Results Across Cycles, the comparative data across the research phases, as presented in Figure 3, show a clear and significant improvement in student competency. At the baseline (pre-cycle) stage, the classroom exhibited a substantial literacy gap. Only 9% of students reached the "Developing as Expected" (BSH) level, while most remained in the "Not Yet Developed" (BB) and "Starting to Develop" (MB) categories. These initial findings indicate that conventional teaching approaches were not sufficiently effective in addressing students' phonological–orthographic difficulties.

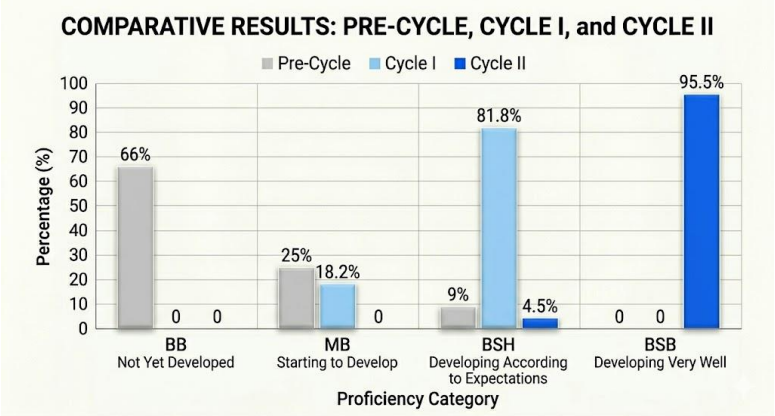

Figure 3. Comparative Results

Implementing the singing method led to clear improvements in learning outcomes. By the end of Cycle I, the proportion of students reaching the Developing as Expected (BSH) level increased sharply to 81.8%, marking an important improvement in word recognition. This progress continued in Cycle II, where all students met the minimum competency standards. Notably, 95.5% of students achieved the highest category, Very Well Developed (BSB). This consistent improvement reflects the effectiveness of the refinements made between cycles, particularly the adaptation of instructional scaffolding to meet individual learning needs.

This transformation indicates that the singing method had a strong effect on children's early literacy readiness. The most important statistical evidence is the complete elimination of the Not Yet Developed (BB) category, which decreased from 66% at baseline to 0% within two cycles. In addition, the Very Well Developed (BSB) category increased sharply from 0% at baseline to 95.5% in Cycle II. This finding suggests that the singing method did not simply produce gradual improvement. Instead, it functioned as a key catalyst for achieving full competency. These results show that melodic mnemonics can provide a strong cognitive bridge, helping children progress from basic phonetic awareness to more advanced word recognition.

The findings of this study show that the singing method significantly improved word recognition skills in early childhood. This improvement is reflected in the strong progression of student achievement, particularly the increase from 0% at baseline to 95.5% in the Very Well Developed (BSB) category. This result suggests that melodic intervention functions as more than a tool for increasing motivation. It also serves as an important cognitive catalyst in the word recognition process. Theoretically, this finding is supported by the Information Processing Theory, which holds that rhythmic melodies can serve as effective mnemonic devices. By organizing linguistic information into rhythmic patterns, the singing method helps children encode phonological–orthographic information into long-term memory more effectively than traditional unimodal instruction [14], [15].

Recent empirical studies support these findings by emphasizing the multisensory nature of musical intervention. Delima Tuesday Siagian [19] and Khairunnisa Nazwa Kamilla [20] highlighted that auditory-rhythmic stimuli can strengthen neural pathways involved in word recognition in young learners. This study extends the discussion by showing how singing can specifically bridge phonetic sounds and written graphemes. Unlike the conventional teaching practices observed during the pre-cycle phase, in which children struggled with abstract symbol recognition, the singing method offered a concrete, engaging, and structured framework that aligned with children's developmental readiness.

A comparative analysis further distinguishes the findings of this study from those of previous interventions. For example, Nuri Safitri [21], who primarily used static visual word cards, reported slower student mastery progression. In contrast, the integration of melodic rhythm in this study served as a multisensory bridge, accelerating children's word acquisition. The auditory dimension provided through music also helped reduce the affective filter [18], a psychological barrier associated with literacy

anxiety that was clearly observed during the preliminary stage of this study. As this barrier decreased, children became more willing and receptive to engage in complex literacy tasks. This condition contributed to the rapid improvement observed in Cycle I and Cycle II.

The pedagogical reason behind the near-perfect mastery achieved in Cycle II was the use of adaptive scaffolding. Reflections from Cycle I showed that although most students had improved, a small group still needed a slower and more deliberate learning pace. Therefore, in Cycle II, the researcher intentionally adjusted the musical tempo, slowing it for students who were still learning within their Zone of Proximal Development (ZPD) [22], [23]. This adjustment gave children sufficient cognitive processing time to connect phonetic sounds with visual symbols. This finding confirms that the effectiveness of the singing method does not depend solely on music. Rather, it depends on how responsively the method is applied to meet students' real-time learning needs.

In conclusion, the strategic use of singing transforms word recognition from a rote memorization activity into an interactive cognitive experience. The findings provide a strong practical framework for educators, showing that early literacy outcomes can be significantly improved when melodic mnemonics are combined with adaptive pedagogical scaffolding. This study reaffirms that, for children aged 5–6 years, music is not merely a recreational activity. Instead, it serves as an essential instructional bridge, helping children build deep, lasting connections between spoken language and written symbols.

CONCLUSION

This study concludes that the singing method is a highly effective intervention for improving word recognition in children aged 5–6 years. The novelty of this research lies in its specific use of singing not only as a motivational tool, but also as a mnemonic-based phonological–orthographic bridge within a Classroom Action Research (CAR) framework. By using rhythmic melodies as structural scaffolding, this method offers a multisensory pathway that helps children understand the abstract process of connecting phonetic sounds with written symbols. This aspect is often overlooked in conventional literacy instruction. However, several limitations should be acknowledged. First, the small sample size and the context-specific setting of a single classroom at TK Santa Maria Surabaya may limit the generalizability of the findings to broader and more diverse educational contexts. Second, this study did not include long-term measurement to examine whether children retained their word recognition skills over time. Future studies should consider using longitudinal designs and larger, multi-site samples to further validate the sustainability and scalability of the mnemonic singing method across different early childhood curricula.

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