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Enhancing Students' English Vocabulary Using Colored Pictures: A Classroom Action Research at the Fourth Grade of MI Nurul Huda NW Sembalun

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Abstract

Penguasaan kosakata yang rendah masih menjadi kendala utama pembelajaran bahasa Inggris di sekolah dasar yang memiliki sumber belajar terbatas. Penelitian ini bertujuan mendeskripsikan peningkatan skor tes kosakata bahasa Inggris siswa kelas IV MI Nurul Huda NW Sembalun melalui penggunaan gambar berwarna cetak yang dipadukan dengan kerangka *Presentation, Practice, and Production* (PPP). Penelitian ini merupakan Penelitian Tindakan Kelas (PTK) berorientasi kuantitatif model Kemmis dan McTaggart yang dilaksanakan dalam dua siklus, masing-masing terdiri atas perencanaan, pelaksanaan, pengamatan, dan refleksi. Subjek penelitian adalah satu kelas yang terdiri atas 24 siswa kelas IV tahun ajaran 2025/2026. Data dikumpulkan melalui tes kosakata objektif (*pre-test*, *post-test* I, dan *post-test* II) dan dianalisis menggunakan statistik deskriptif, uji normalitas, dan uji Wilcoxon *signed-rank*. Rata-rata skor meningkat dari 53,33 pada *pre-test* menjadi 67,08 pada siklus I dan 78,54 pada siklus II, sedangkan ketuntasan klasikal meningkat dari 20,83% menjadi 54,17% dan 87,50%, sehingga melampaui indikator keberhasilan 75%. Gambar berwarna cetak terbukti menjadi media yang praktis dan murah untuk meningkatkan kosakata pembelajar muda di sekolah dasar pedesaan.

Low vocabulary mastery remains a major obstacle to English learning in primary schools with limited learning resources. This study aimed to describe the improvement in English vocabulary test scores of fourth-grade students at MI Nurul Huda NW Sembalun through printed colored pictures integrated into the Presentation, Practice, and Production (PPP) framework. It was a quantitatively oriented Classroom Action Research (CAR) following the Kemmis and McTaggart model, conducted in two cycles of planning, acting, observing, and reflecting. The subjects were one class of 24 fourth-grade students in the 2025/2026 academic year. Data were collected through objective vocabulary tests (pre-test, post-test I, and post-test II) and analyzed using descriptive statistics, normality tests, and the Wilcoxon signed-rank test. The mean score rose from 53.33 in the pre-test to 67.08 in Cycle I and 78.54 in Cycle II, while classical completeness increased from 20.83% to 54.17% and 87.50%, exceeding the 75% success indicator. Printed colored pictures are therefore

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a practical and affordable medium for improving the vocabulary of young learners in rural primary schools.

Kata Kunci : Kosakata, Gambar Berwarna, Penelitian Tindakan Kelas, Pembelajar Muda
Keywords : Vocabulary Mastery, Colored Pictures, Classroom Action Research, Young Learners

Pendahuluan

Vocabulary is the foundation on which the four language skills of listening, speaking, reading, and writing are built. Learners who lack a sufficient vocabulary base cannot comprehend input or express meaning effectively in the target language, which is why vocabulary deserves a central and deliberate place in language instruction rather than a supplementary one (Nation, 2022). The need is particularly pressing at the elementary level, where the foundation for later English competence is laid. In Indonesia, where English is a foreign language and children have little exposure to it outside school, the vocabulary that primary students acquire depends almost entirely on what happens in the lesson itself.

Elementary school students are young learners whose thinking is closely tied to concrete objects and direct experience. Piaget and Inhelder (1969) place children of roughly seven to eleven years in the concrete operational stage, in which reasoning still relies on tangible referents, and Williams and Burden (1997) argue that language input for children should be contextualized and meaningful rather than abstract. Multimedia learning theory adds that people learn more deeply from words and pictures together than from words alone, because verbal and pictorial information are processed through two complementary channels (Mayer, 2021), while well-designed visuals can reduce unnecessary cognitive load and support schema construction in long-term memory (Sweller, 1988). Colored pictures are therefore a theoretically well-grounded medium for young learners: they give each new English word a concrete visual referent, and color can act as a perceptual cue that attracts and sustains attention.

The condition in the fourth grade of MI Nurul Huda NW Sembalun, however, departs from these recommendations. The school is a private Islamic elementary school (*madrasah ibtidaiyah*) affiliated with Nahdlatul Wathan, located in Sembalun Lawang Village, a rural highland community on the slopes of Mount Rinjani in East Lombok. Its remote location limits access to commercially produced teaching materials and digital technology. A preliminary observation showed that English vocabulary was taught through a chalk-and-talk routine: the teacher wrote words on the blackboard, and the students copied and memorized them without pictures, flashcards, or any other visual support. Students' vocabulary scores were consistently low, and most of them did not reach the school's Minimum Mastery Criterion (*Kriteria Ketuntasan Minimal*/KKM) of 70.

Earlier classroom action studies have reported vocabulary gains when visual media replace verbal-only instruction. Armelia et al. (2024) used card games over two cycles with 11 second-grade students in Tangerang and found a significant increase in vocabulary mastery from Cycle 1 to Cycle 2. Kartawijaya et al. (2024) used cartoon pictures with 27 first-semester university students and recorded mean scores of 48.80 in the pre-test, 64.80 in the first evaluation, and 81.40 in the final evaluation. Sudirman (2024) applied

picture media with 15 fifth-grade students at SDN 1 Mangkung, where vocabulary mastery rose from 55.8% before the action to 61.5% in Cycle I and 78.3% in Cycle II.

These studies confirm the potential of visual media, yet they differ from the present context in several respects. They involved other age groups (second grade, fifth grade, and university level), two of the three used card games or cartoons rather than plain printed pictures embedded in a PPP lesson sequence, and, to the authors' knowledge, none was conducted in a geographically isolated, resource-limited Islamic primary school. Evidence on how a simple, low-cost printed medium works for fourth graders in such a setting is therefore still scarce, and this is the research gap addressed here. The novelty of this study lies in (1) its focus on printed colored pictures, used within the PPP framework as the only instructional medium; (2) its rural highland *madrasah* setting, where digital media are not a feasible alternative; and (3) its quantitative orientation, in which the decision to continue or stop the action in each cycle is based on test-score data (mean score and classical completeness) analyzed with SPSS.

This study therefore aims to describe how the use of printed colored pictures, integrated into the PPP framework, can enhance the English vocabulary test scores of fourth-grade students at MI Nurul Huda NW Sembalun. It is guided by one research question: Is there any significant improvement in students' English vocabulary test scores through the use of colored pictures? The action is regarded as successful when at least 75% of the students reach the KKM of 70.

METODE PENELITIAN

Research Design

This study employed classroom action research (CAR) with a quantitative orientation. CAR was chosen because the problem, low vocabulary scores under a conventional method, is specific to one classroom and can be addressed by the teacher and researcher working together through repeated, evidence-based improvement (Kemmis & McTaggart, 1988; Kemmis et al., 2014). The study followed the Kemmis and McTaggart spiral of planning, acting, observing, and reflecting and was carried out in two cycles. Whether the action continued to the next cycle was decided solely from numerical test data. The whole class received the same intervention and was treated as a single unit for testing and analysis; no separate control group was used. In Cycle II, the class was organized into small collaborative groups for practice activities.

Setting and Participants

The study was conducted at MI Nurul Huda NW Sembalun, Sembalun Lawang Village, East Lombok Regency, West Nusa Tenggara, in the 2025/2026 academic year. The population was all fourth-grade students of the school, and the sample was the fourth-grade class, selected through purposive sampling because the preliminary observation had revealed persistently low vocabulary scores in this class. The class consisted of 24 students aged approximately nine to ten years. The headmaster and the English teacher gave permission for the study and cooperated throughout.

Instrument and Data Collection

The only data collection technique was a written vocabulary test, administered three times: a pre-test before any action, post-test I at the end of Cycle I, and post-test II at the end of Cycle II. The test covered ten basic animal words (lion, elephant, cat, dog, bird, fish, rabbit, snake, horse, and frog) and consisted of 20 objective items: 10

multiple-choice items, in which students identify the animal shown in a picture from four options, and 10 picture-word matching items. Each correct answer earned one point, and the final score was calculated as (correct answers / 20) × 100, giving a scale of 0 to 100. The items were aligned with the indicators in the lesson plan. No interviews, questionnaires, or field-note instruments were used as data sources.

Research Procedure

Cycle I. In the planning stage, the researcher and the English teacher prepared the lesson plan, printed full-color picture flashcards for the target animal words, and developed post-test I. In the acting stage, the lesson followed the PPP sequence over a two-period meeting (2 × 35 minutes). In the presentation phase, the teacher showed each picture, pronounced the word, and led choral repetition. In the practice phase, students pronounced the words in pairs and took part in guided matching and picture-identification activities with corrective feedback. In the production phase, students named animals on randomly shown flashcards and wrote the English names. In the observing stage, post-test I was administered and scored. In the reflecting stage, the mean score and classical completeness were compared with the success indicator.

Cycle II. Based on the reflection on Cycle I, the lesson plan was revised to provide more intensive vocabulary practice, to review Cycle I vocabulary before new words were introduced, to increase the use of printed colored pictures, and to organize students into small groups for picture identification, matching, pronunciation practice, and vocabulary games. The teacher gave immediate feedback during the activities. Post-test II was administered at the end of the cycle.

Data Analysis

Test scores were analyzed quantitatively. First, the mean score for each test was calculated. Second, classical completeness was calculated as the number of students scoring at least 70, divided by the total number of students, multiplied by 100%. Third, descriptive statistics (minimum, maximum, mean, and standard deviation) and normality tests (Kolmogorov-Smirnov with Lilliefors correction and Shapiro-Wilk) were run in IBM SPSS Statistics. Fourth, because the distribution of score differences between tests was not consistently normal, the improvement between tests was examined with the Wilcoxon signed-rank test ($\alpha = .05$), a non-parametric test for paired data. Individual mastery was defined as a score of at least 70 (KKM), and the action was considered successful when classical completeness reached at least 75%.

HASIL DAN PEMBAHASAN

Initial Condition (Pre-test)

Before the action, the pre-test showed low vocabulary mastery. As Table 1 shows, the mean score was 53.33, with scores ranging from 30 to 80. Only 5 of the 24 students (20.83%) reached the KKM of 70, while 19 students (79.17%) did not. This confirmed the problem found in the preliminary observation and justified the action.

Cycle I

In Cycle I, printed colored pictures were introduced through the PPP sequence for animal vocabulary. Post-test I yielded a mean score of 67.08, with scores ranging from 50 to 90. The number of students reaching the KKM rose to 13 (54.17%), and the lowest score rose from 30 to 50. Although every measure improved, classical completeness remained

below the 75% indicator. In the reflection, it was noted that several students still had difficulty remembering the words and needed more practice and repeated exposure, so the action was continued with a revised plan in Cycle II.

Cycle II

In Cycle II, the revised plan added vocabulary review, more intensive practice, small-group work, and immediate feedback, all with printed colored pictures. Post-test II yielded a mean score of 78.54, with scores ranging from 60 to 100. Twenty-one of the 24 students (87.50%) reached the KKM, and only three students (12.50%) remained below it, although each of them still scored higher than in the pre-test. Classical completeness exceeded the 75% indicator, so the research was concluded at the end of Cycle II.

Comparison across Stages

Table 1 summarizes the descriptive statistics and classical completeness at each stage, and Figure 1 visualizes the trend. The mean score increased by 13.75 points from the pre-test to post-test I and by a further 11.46 points to post-test II, a total gain of 25.21 points (about 47% above the baseline). Classical completeness rose by about 33 percentage points in each cycle. The standard deviation decreased slightly from 13.41 to 10.78, indicating that scores became somewhat more homogeneous as the weakest performers improved.

Table 1. Students' vocabulary test results across the research stages (N = 24)

Stage	Min	Max	Mean	SD	Students ≥ 70	Classical completeness
Pre-test	30	80	53.33	13.406	5	20.83%
Post-test I (Cycle I)	50	90	67.08	11.025	13	54.17%
Post-test II (Cycle II)	60	100	78.54	10.782	21	87.50%

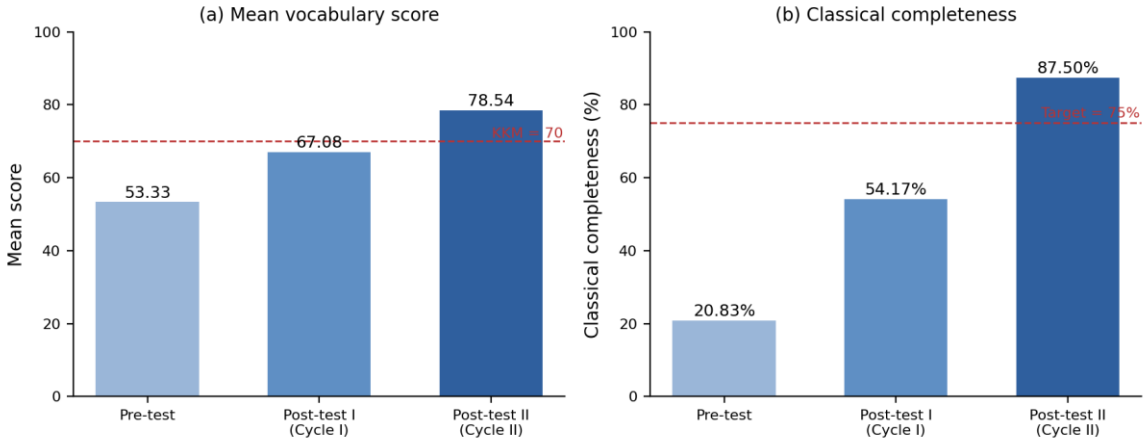


Figure 1. Improvement in mean scores and classical completeness

The Kolmogorov-Smirnov and Shapiro-Wilk tests (Table 2) showed that the scores at all three stages were normally distributed (all Sig. > .05), indicating no serious deviation from the expected distribution and supporting the use of the mean and standard deviation as descriptors.

Table 2. Tests of normality

Stage	K-S statistic	K-S Sig.	S-W statistic	S-W Sig.
Pre-test	.149	.181	.946	.221
Post-test I	.156	.133	.947	.231
Post-test II	.161	.110	.956	.356

To test whether the improvement was systematic, scores at the successive stages were compared with the Wilcoxon signed-rank test (Table 3). All non-tied differences were positive: 22 of 24 students scored higher in post-test I than in the pre-test, 23 scored higher in post-test II than in post-test I, and 24 scored higher in post-test II than in the pre-test. All three comparisons were significant at $p < .001$, which allows the research question to be answered affirmatively.

Table 3. Wilcoxon signed-rank test of score differences between stages (N = 24)

Comparison	Mean difference	Higher / equal / lower	Z	p
Pre-test → Post-test I	+13.75	22 / 2 / 0	4.17	< .001
Post-test I → Post-test II	+11.46	23 / 1 / 0	4.38	< .001
Pre-test → Post-test II	+25.21	24 / 0 / 0	4.32	< .001

Discussion

The results show that printed colored pictures integrated into the PPP framework were followed by a steady and substantial rise in vocabulary scores, and that the 75% classical completeness indicator was achieved in the second cycle. This pattern can be interpreted through three theoretical lenses.

First, the finding is consistent with Piaget's account of the concrete operational stage (Piaget & Inhelder, 1969). The students, about nine to ten years old, had previously been asked to memorize words from the blackboard, an abstract task that offers no concrete referent. Colored pictures allowed them to link each English word directly to a familiar animal, which probably made the words easier to recognize, understand, and recall. This is in line with Williams and Burden (1997), who stress meaningful and contextualized input for children, and with Wright (1989), who describes pictures as a way of attracting learners' attention and supplying meaning for new language.

Second, the finding fits the dual-channel assumption of multimedia learning (Mayer, 2021). During the presentation and practice phases, students saw the picture while hearing and repeating the word, so the pictorial and verbal channels were active at the same time and could form a combined memory trace. Because each picture showed a single, uncluttered object, the visual load was also low, which is compatible with the cognitive-load argument that well-designed visuals support schema building (Sweller, 1988). The gains were greatest where the combination of picture, sound, and repetition was most intensive.

Third, the contrast between the cycles illustrates the value of the iterative CAR design. Cycle I produced a clear gain, yet the completeness of 54.17% showed that exposure to pictures alone was not enough for about half of the class. The reflection led to review of earlier words, more practice, small-group work, and immediate feedback, and the gains in Cycle II were of similar size in mean score and slightly larger relative to the remaining gap. This suggests that the pictures worked best when combined with repeated, interactive practice, which is also the suggestion of the PPP framework. It also means that the Cycle II gain should not be attributed to the pictures alone; the added group work, review, and feedback probably contributed to it.

The pattern is similar to that reported by earlier studies. Kartawijaya et al. (2024) reported mean scores increasing from 48.80 to 64.80 and then to 81.40 across two cycles, a gain of 32.60 points with university students, compared with the 25.21 points obtained here with fourth graders. Sudirman (2024) found mastery rising from 55.8% to 61.5% and then 78.3% with fifth graders, and Armelia et al. (2024) also found a significant gain from the first to the second cycle with second graders using card games. Together with these studies, the present results suggest that visual media can raise vocabulary scores across age groups and media forms. The contribution of this study is to show that the same pattern appears in a rural highland madrasah with only printed, locally preparable pictures and no digital equipment. The practical implication is that low-cost printed media, prepared by the teacher, can be a feasible option for English vocabulary teaching in schools with limited facilities, provided they are embedded in a structured sequence such as PPP and followed by interactive practice and reflection on test results.

Several limitations should be noted. The study involved one class of 24 students and one vocabulary theme (animals), so the findings are specific to this context and should not be generalized. Without a control group, the gains cannot be separated from other influences such as maturation, repeated testing, and the added group activities in Cycle II. The tests measured recognition of words immediately after each cycle, and no delayed test was given, so long-term retention is unknown. The reliability and item analysis of the instrument were not reported. Finally, the researcher’s observation of students’ greater enthusiasm and confidence was not measured with a formal instrument and is therefore only supportive evidence.

KESIMPULAN DAN SARAN

Kesimpulan

The use of printed colored pictures within the PPP framework was followed by a significant improvement in the English vocabulary test scores of fourth-grade students at MI Nurul Huda NW Sembalun, so the research question is answered affirmatively. The mean score rose from 53.33 in the pre-test to 67.08 in Cycle I and 78.54 in Cycle II, and classical completeness rose from 20.83% to 54.17% and 87.50%, exceeding the 75% success indicator. The improvement was statistically significant between every pair of consecutive tests, and every student scored higher at the end of the study than at the beginning.

Theoretically, the results add quantitative evidence from a rural, resource-limited setting to the literature on visual media for young learners’ vocabulary. Practically, they show that printed colored pictures are an effective, practical, and affordable medium that does not require digital infrastructure. The study is limited to one class, one vocabulary theme, and immediate post-tests without a control group.

Saran

For English teachers, printed colored pictures can be used as a vocabulary medium and should be combined with interactive practice such as matching, pronunciation drills, vocabulary games, and group work, with each cycle's test results used to decide what to revise. For schools and policy makers, supporting the provision of low-cost visual media and training teachers to design them would be a realistic way to improve English learning in remote schools. For future researchers, studies are recommended that use a control or comparison group, other vocabulary themes, larger samples and other grade levels, and a delayed post-test to examine retention; the effect of color could also be tested directly by comparing colored and black-and-white pictures, and printed with digital visual media.

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