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Improving Students' English Vocabulary Mastery Through Picture Series in Class 7F MTsN 1 Probolinggo

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Abstract

Vocabulary mastery plays a crucial role in English language learning because it enables learners to understand meaning and communicate ideas effectively. However, many junior secondary school students experience difficulties in comprehending, remembering, and using English vocabulary in appropriate contexts. This study aimed to investigate the use of picture series as a visual learning medium to support students' vocabulary mastery in English classrooms. The research was conducted in a junior secondary school and involved seventh-grade students. Classroom Action Research was applied through two instructional cycles consisting of planning, action, observation, and reflection stages. Data were collected using vocabulary tests and classroom observations to examine both learning outcomes and students' learning behavior. The findings revealed noticeable improvements in students' vocabulary mastery after the implementation of picture series. Students demonstrated higher levels of engagement, participation, and confidence during learning activities supported by sequential visual images. The use of picture series helped students understand word meanings through contextual clues, reduced learning difficulty, and supported better retention of new vocabulary. In addition, students were more active in using vocabulary in simple sentences and classroom interactions. Overall, the study indicates that picture series provide meaningful visual support that enhances vocabulary learning and creates a more interactive and motivating learning environment in junior secondary English classrooms.

Keywords: Vocabulary Mastery, Picture Series, Visual Learning, English Education

1. Introduction

English learning at the junior secondary school level emphasizes the development of students' ability to communicate meaningfully in interpersonal, transactional, and functional contexts. To achieve these communicative goals, learners are required to possess sufficient vocabulary knowledge, as vocabulary functions as a fundamental component that supports listening, speaking, reading, and writing skills. Without adequate vocabulary mastery, students often experience difficulties in understanding instructional input, expressing ideas accurately, and participating actively in classroom communication.

Vocabulary knowledge has been shown to have a significant relationship with overall English language competence. Reported that learners with stronger vocabulary knowledge tend to demonstrate better performance across English language skills. This finding indicates that vocabulary is not merely an additional aspect of language learning, but a core element that directly contributes to students' communicative ability (Hartini 2024). Therefore, vocabulary instruction needs to be systematically designed and emphasized in junior secondary classrooms.

Vocabulary mastery involves more than the ability to recall word meanings. It includes knowledge of pronunciation, spelling, word forms, grammatical categories, and the appropriate use of words in context (Fitdarlin Waruwu, Hidayati Daeli and Kristof Martin Efori Telaumbanua 2023). Effective vocabulary learning requires repeated exposure to words in meaningful situations so that learners can transfer new lexical items from short-term memory to long-term retention. However, vocabulary teaching practices in many classrooms still rely heavily on memorization and translation, which often fail to provide sufficient contextual support for learners.

To overcome this limitation, teachers need instructional media that can present vocabulary in meaningful contexts, reduce students' cognitive burden, and facilitate comprehension. One instructional medium that fulfills these criteria is picture series. Picture series refer to a sequence of related images that depict events, actions, or situations in a logical order. Through visual sequencing, picture series help learners infer meanings, understand relationships between words and actions, and connect vocabulary with real-life contexts.

The use of picture series is supported by several theoretical perspectives. Dual Coding Theory explains that learning is more effective when verbal information is combined with visual representations, as this combination strengthens memory retention. Cognitive Load Theory suggests that visual supports help reduce unnecessary mental effort by guiding learners' attention to relevant information. From a sociocultural perspective, picture series function as mediating tools that encourage interaction and collaborative meaning-making. In addition, Schema Theory explains that sequential images activate learners' prior knowledge, enabling them to process and retain new vocabulary more effectively.

Several studies have specifically investigated the use of picture series as sequential visual media in English learning. Examined the implementation of a series of pictures arranged sequentially to represent procedural events, and the findings showed that picture series supported students in understanding and retaining new vocabulary (Yulianti 2025). Employed ordered picture sequences in vocabulary instruction and reported increased student engagement and improved vocabulary acquisition due to the availability of clear visual context (Belangkaehe, Bingku, and Kojongian 2023). Used picture series depicting a sequence of events to assist students in narrative writing and found that the visual order helped learners access relevant vocabulary more effectively (anita dwi basuki, amra ariyani 2024). Implemented sequential picture narratives and reported that students demonstrated better vocabulary retention and contextual understanding (Karim, Matas, and Ismail 2024).

However, although these studies clearly utilized picture series characterized by sequential images, most of them focused on writing or reading skills rather than examining vocabulary mastery as the primary learning outcome.

Despite the growing number of studies on visual learning media, several gaps remain. Many previous studies were conducted in urban or well-resourced schools, leaving limited evidence from semi-urban contexts. In addition, vocabulary learning has often been measured using recognition-based tests, which may not fully capture students' ability to use vocabulary in context. Furthermore, learners' motivation and engagement in vocabulary learning through picture series remain underexplored.

A preliminary observation conducted in class 7F of MTsN 1 Probolinggo revealed several challenges in vocabulary learning. Students experienced difficulties in remembering newly learned words, distinguishing similar word forms, and applying vocabulary in speaking and writing activities. Classroom observations also showed that students tended to be less motivated when vocabulary instruction relied solely on text-based materials without visual support. These findings indicate the need for an instructional medium that can provide meaningful context and engage students actively in learning.

Considering these conditions, picture series offer a promising medium for vocabulary instruction. By presenting vocabulary through sequential visual contexts, picture series help students infer meaning, reduce learning difficulty, and enhance retention. Therefore, this study aims to investigate the implementation of picture series as a learning medium for developing the vocabulary mastery of seventh-grade students at MTsN 1 Probolinggo. It is expected that the findings of this study will contribute to practical insights into vocabulary teaching using visual media in junior secondary classrooms.

2. Research Methods

This study employed Classroom Action Research (CAR) as the research design, as the main objective of the study was to improve students' English vocabulary mastery through the use of picture series in a real classroom context. Classroom Action Research was considered appropriate because it allows the researcher to identify learning problems, implement instructional actions, observe the learning process, and reflect on the results in order to achieve continuous improvement in students' learning outcomes. The research design involved an initial measurement, followed by two instructional actions, each of which was accompanied by an evaluation to measure students' vocabulary development.

Table 1. The Schema of Classroom Action Research Design

Stage	Pre-test	Treatment	Post-test
Action 1	O1	X1	O2
Action 2	–	X2	O3

Note:

O1 = Pre-test

O2 = Post-test 1

O3 = Post-test 2

X1 = Vocabulary teaching using picture series (first action)

X2 = Improved vocabulary teaching using picture series (second action)

The research was conducted at MTsN 1 Probolinggo during the 2025/2026 academic year. The participants of this study were 21 students of class 7F with varying levels of English proficiency. Preliminary observations showed that many students experienced difficulties in understanding the meaning of English vocabulary, retaining newly learned words, and using vocabulary correctly in simple communication. These conditions indicated the need for an instructional strategy that could provide clear visual context, reduce learning difficulties, and increase students' motivation in learning English.

Table 2. Research Population and Sample

Comparison	Improvement
Pre-test → Post-test 1	Decreased
Post-test 1 → Post-test 2	Increased significantly
Pre-test → Post-test 2	Improved

This study involved two variables. The independent variable was the use of picture series as a teaching medium in vocabulary instruction, while the dependent variable was students' English vocabulary mastery. The influence of the instructional medium was examined by comparing students' vocabulary achievement before and after the implementation of picture series through a series of vocabulary tests.

Table 3. Students' Mean Score of Vocabulary Tests

Test	Mean Score
Pre-test	61.29
Post-test 1	57.57
Post-test 2	86.52

Before the instructional actions were implemented, students were given an initial vocabulary test to measure their baseline ability. The mean score of the initial test was 61.29, indicating that students' vocabulary mastery was still below the expected level. The Classroom Action Research was then carried out in two instructional actions. During the first instructional action, vocabulary learning was conducted using picture series illustrating daily activities and simple events that were relevant to the students' learning materials. Students were guided to identify new vocabulary, infer meanings from visual context, practice pronunciation and spelling, and use the vocabulary in simple sentences. Learning activities were carried out individually, in pairs, and in small groups to encourage active participation. At the end of the first action, an evaluation was administered, and the mean score obtained was 57.57, showing that students' improvement was not yet optimal. Based on the results of the first evaluation and classroom observations, a reflection was conducted to identify the weaknesses of the initial instructional action. Several improvements were then made in the second instructional action, such as providing clearer instructions, selecting simpler and more focused picture series, and giving more guided practice. In the second action, students were given more opportunities to discuss picture sequences, describe them orally, and apply the vocabulary in short dialogues or simple stories. After the second instructional action, a final evaluation was administered, and the mean score increased significantly to 86.52, indicating a substantial improvement in students' vocabulary mastery.

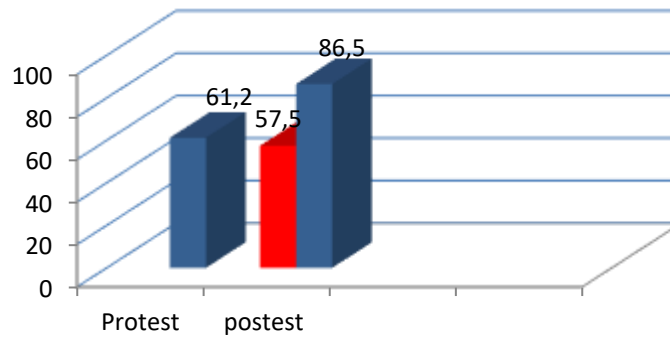


Figure 1. Student vocabulary performance

The data in this study were collected through vocabulary tests and classroom observations. The vocabulary tests consisted of multiple-choice items designed to measure students' understanding of word meanings and their ability to use vocabulary appropriately. Observation sheets and field notes were used to record students' participation, motivation, and responses during the learning process. The data were analyzed using quantitative and qualitative techniques. Quantitative analysis focused on comparing the mean scores obtained at each stage of the research to identify students' vocabulary improvement, while qualitative analysis was used to describe students' learning behavior and classroom interaction during the implementation of picture series.

The research was considered successful if most students achieved the minimum mastery score of 70 and demonstrated positive changes in participation, motivation, and confidence in using English vocabulary. Through this Classroom Action Research process, the effectiveness of picture series as a teaching medium for improving students' English vocabulary mastery could be systematically examined.

3. Results and Discussions

The results of this classroom action research demonstrate a clear and meaningful change in students' vocabulary mastery following the implementation of a picture-series based instructional approach. At the outset of the study, students showed limited mastery of the target vocabulary, with a mean score of 61.29 on the pre-test. This initial score indicates that most students were below the expected mastery threshold and experienced difficulty in recognizing, understanding, and using English words in communicative contexts (Wahid, Putra, and Java 2023). The data gathered from classroom observations supported the score pattern: students tended to rely on rote memorization, offered short one-word answers, and struggled to place vocabulary into context during speaking and writing tasks. These early conditions motivated the researcher to introduce sequential picture series as a scaffolded visual medium designed to contextualize words and promote deeper cognitive processing.

Following the first instructional action, measured by Post-test 1, the mean score slightly declined to 57.57. While a decline may seem discouraging at first glance, careful reflection on classroom dynamics and task design explains this outcome. The first cycle acted as a diagnostic phase: students were exposed to a new learning strategy that required them to infer meaning from images rather than depend on direct translation or teacher explanation. Similar patterns were reported in classroom-based vocabulary research, where students initially struggled to adjust to interactive or game-based learning before showing significant improvement in subsequent cycles (totti, tri kurniawati 2024). Many students were not yet familiar with this inferential approach and needed guidance on how to read sequences, note contextual clues, and transfer those clues into lexical knowledge. Observational records showed that some picture sequences were too crowded with detail, some instructions were ambiguous, and several students reverted to guessing without checking usage. In action research, such an initial dip is not uncommon; it reveals how learners are adjusting to a new approach and highlights specific areas where teacher scaffolding must be strengthened. The practical adjustment following this cycle — simplifying image sequences, clarifying prompts, modeling the inferencing process, and boosting guided practice — was therefore essential before expecting measurable gains.

After reflective revision and reimplementaion in the second instructional action, the results improved dramatically. Post-test 2 produced a mean score of 86.52, representing an increase of about 25 points from the initial pre-test. This large gain indicates that the combination of picture series and iterative teacher reflection had a powerful effect on students' vocabulary mastery. The narrative evidence from classroom observation confirms

that students in the second cycle engaged more actively with the pictures, offered longer responses, attempted to construct short dialogues based on images, and used vocabulary more accurately in both spoken and written activities. The jump in score aligns with several recent Indonesian studies that report significant gains when picture or picture-series media are integrated into vocabulary instruction; researchers in 2023–2024 have found that picture-based interventions, when carefully scaffolded and embedded within iterative teaching cycles, raise test scores and increase learner engagement. For example, pre-experimental and classroom action research projects across Indonesian junior and senior high schools reported similar score progress after refining picture-based lessons between cycles (rafli, eny syatriana 2024).

The mechanism underlying this success can be seen through several interacting factors. First, picture series provide rich contextual cues that reduce cognitive load and support meaningful encoding. According to dual coding theory, information presented both visually and verbally benefits from two memory traces, which increases the likelihood of recall. In practice, sequenced images narrow the gap between a word and its use: students can see actions, objects, sequences, and relationships that anchor lexical items in situations rather than presenting them as isolated labels. The classroom evidence in this research showed that when students could mentally link a target word to a clear action in a picture series, they were better able to define, pronounce, and use that word in a short sentence. The use of picture series played a crucial role in supporting students' vocabulary development by providing visual context that facilitated comprehension and memory retention. Visual-based instruction has been proven effective in helping learners connect word meanings with real situations and reduce cognitive load (Brilianti and Yogyakarta 2024). This explanation is consistent with recent empirical work in Indonesian contexts showing that picture dictionaries, picture cards, and picture series help learners form stronger associations and improve retention (Nurfadhila, Intan, and Asnidar 2025).

Second, the social dimension of learning is amplified when using picture series. The activities implemented in the second cycle were deliberately interactive: students worked in pairs and small groups to narrate sequences, predict actions, and correct each other's use of vocabulary. This peer negotiation created opportunities for immediate feedback, correction, and rehearsal — processes known to support vocabulary consolidation. Observational notes recorded more peer talk, peer correction, and collaborative problem solving during the second cycle than during the first. This finding aligns with recent research highlighting that engaging instructional strategies significantly improve students' participation and learning motivation in EFL classrooms (aisyah ashar, aqzhariady, rais 2025). Recent Indonesian CAR studies using picture-based approaches likewise emphasize how group interaction around visuals enhances vocabulary use and confidence. Teachers reported that learner talk time increased, and quieter students were more willing to contribute when a picture acted as a shared scaffold (Rahaman et al. 2024).

Third, teacher reflection and iterative improvement were essential. The CAR model used in this study — plan, act, observe, reflect — allowed the teacher to identify what did not work in the first cycle and to implement concrete changes in the second. Improvements included reducing extraneous visual details in images, pre-teaching a small set of target words, modeling sentence frames for guided practice, and designing follow-up tasks that required active language production (such as short dialogues and sequencing tasks). These changes increased the explicitness of instruction without removing the visual exploration that makes picture series effective. The importance of reflective adjustment in improving instructional outcomes is well documented in Indonesian action research literature: studies report greater gains when teachers refine materials and scaffolding across cycles rather than repeatedly using the same materials without change (Bella et al. n.d.).

Beyond test scores, the quality of language use improved as well. In the second cycle, students produced more accurate collocations, clearer verb forms in simple present and past contexts related to picture actions, and fuller noun phrases anchored in the pictorial contexts. For example, where students had previously named isolated objects (e.g., “apple”), they increasingly produced phrases and short sentences such as “He eats an apple” or “The boy is running to school.” This shift — from item recognition to contextualized use — is the desired outcome of vocabulary instruction because it signals movement toward incidental learning and communicative competence rather than mere memorization. Similar patterns have been observed in studies of picture card and picture series instruction in Indonesia: learners progress from single-word recall to contextualized phrase and sentence production as they become more familiar with using images as meaning scaffolds.

Motivation and attention were other notable outcomes. Many teachers and researchers in Indonesian primary and secondary settings report that colorful, meaningful images capture students' attention and create a positive emotional climate for learning. In the present research, students showed greater enthusiasm, maintained attention

for longer periods, and reported enjoyment in questionnaire and oral feedback sessions. This affective shift likely contributed to the cognitive gains seen in the second post-test: motivated learners invest more mental effort, engage in repeated practice, and are more willing to take communicative risks that reinforce learning. Literature from 2023–2024 supports the link between engaging visual materials and increased motivation, which in turn predicts better learning outcomes for vocabulary tasks .

It is also important to consider the specific design of picture series materials. Not all visuals are equally effective: images must be culturally familiar, clearly focused on the target lexical items, and sequenced logically to support narrative or procedural comprehension. In the first cycle, some images included background details or culturally ambiguous actions that distracted learners. After revising the picture sequences to be locally relevant and less cluttered, students could more reliably draw correct inferences. This suggests that instructional designers and teachers should carefully vet images for clarity and relevance; locally grounded visuals help students map words to experiences they recognize. Indonesian research on picture design and media development echoes this recommendation: when images are authentic to students' life worlds, vocabulary learning is more meaningful and durable.

Another analytical point concerns the learning curve associated with a new instructional method. The temporary decline seen after the first action is a reminder that innovations require time and practice to show their full effects. The decline allowed the teacher to identify the precise challenges — such as unclear prompts and insufficient modeling — and respond with targeted strategies. Many CAR reports in Indonesian settings show similar trajectories: an initial period of adjustment followed by rapid improvement once scaffolding and student familiarity increase. The implication for practice is clear: teachers should not discard promising methods after a single iteration of poor results but should use reflection to refine their approach.

The practical implications of this study are relevant for classroom practice across similar contexts. First, picture series are a low-cost, flexible tool for vocabulary teaching that can be adapted to many topics and levels. Teachers can create sequences with simple drawings, photographs, or digital images to match curricular themes. Second, proper scaffolding is essential: pre-teaching key words, modeling how to read a sequence, and giving structured practice tasks (e.g., guided dialogues, sentence frames, and group narration) support learners in making the visual-verbal connection. Third, iterative reflection and minor design changes can dramatically raise effectiveness; teachers should anticipate making small adjustments after initial implementation. These recommendations align with the experiences reported in Indonesian teacher-research literature where picture media were adapted and refined across cycles to meet learners' needs.

The study does have limitations that must be acknowledged. The research was conducted in a single class with twenty-one participants, which limits the generalizability of the findings to different contexts or age groups. Future studies might include comparative groups (control vs. treatment) or larger samples to enable more general statements about effect size. In addition, the instruments used — primarily multiple-choice vocabulary tests and observational records — provided useful indicators of learning but could be complemented in the future with measures of retention over longer intervals, vocabulary depth tasks, or qualitative interviews to capture learners' internal strategies. Several recent Indonesian studies similarly call for mixed methods and longitudinal follow-ups to examine how picture-based instruction supports retention over time.

Another limitation is that the research focused primarily on receptive and basic productive vocabulary tasks; it did not systematically assess higher-order use such as creative writing or complex discourse. While there is evidence that better vocabulary supports more complex tasks, additional research could investigate how picture-series training interacts with narrative writing, reading comprehension, or speaking fluency over extended periods. Some Indonesian studies have begun exploring picture series in narrative writing contexts and found encouraging results, suggesting an avenue for extended research.

From a theoretical standpoint, the study reinforces the role of multimodal instruction in language learning. The combined visual and verbal input provided by picture series supports encoding, retrieval, and use of vocabulary, consistent with theories of cognitive load and dual coding (Ariesta, Framesti, and Mursidin 2024). Moreover, the socio-interactive tasks embedded in the second cycle — paired narration, group dialogue, and peer feedback — provided the communicative practice necessary for lexical consolidation. This integrated approach — visuals plus interaction plus reflection — represents a practical model for classroom teachers who wish to both motivate students and produce measurable learning gains. Indonesian empirical work in 2023–2024 increasingly points to such integrated models as particularly effective in local classrooms.

In sum, this research provides strong practical evidence that picture series, when used as part of a reflective classroom action research cycle, can substantially improve students' vocabulary mastery in a junior secondary classroom. The progression from a mean pre-test score of 61.29 to a final mean of 86.52 demonstrates substantive learning gains and suggests that visual, interactive, and carefully scaffolded instruction is a viable path for vocabulary teaching. Teachers who adopt picture series should plan for iterative improvement, ensure images are clear and culturally relevant, provide explicit scaffolding, and actively engage students in communicative use of the target words. Future research should replicate this study with larger and more diverse samples, include longer-term retention measures, and explore transfer effects to reading, writing, and speaking tasks. Collectively, such work will strengthen the evidence base for picture-based vocabulary instruction in Indonesian classrooms and beyond.

4. Conclusion

Based on the results of this study, it can be concluded that the use of picture series is an effective and practical strategy for improving vocabulary mastery among seventh-grade students. At the beginning of the study, many students struggled to understand and remember vocabulary because they relied mainly on memorization and translation. Their initial test performance showed that they needed clearer context and more engaging learning support. Through two learning cycles, picture series helped students connect vocabulary with meaningful visual situations. Students gradually learned how to interpret the images, understand word meanings, and use vocabulary in simple sentences. The learning process became more enjoyable and less stressful, and students became more active in class. They showed greater participation, higher motivation, and better confidence when using English. After improvements were made in the second cycle—such as clearer instructions and simpler picture sequences—students' vocabulary mastery increased significantly. They were able to recall vocabulary more accurately, apply it more confidently, and show a better understanding of word usage. This improvement proves that picture series support learning both cognitively and emotionally: they help students process information more easily and make the learning process more meaningful. Overall, picture series can be considered a valuable teaching tool for vocabulary learning. They help students overcome difficulties, support long-term retention, and create a more engaging learning environment. Teachers can use picture series not only to introduce vocabulary but also to strengthen comprehension, encourage communication, and improve classroom interaction. The success of this study shows that visual learning media can significantly enhance vocabulary achievement when applied effectively and consistently.

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