

## **Enhancing Students' Vocabulary Mastery Through Snowball Throwing Games at MTs GUPPI Kaluppang**

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### **ABSTRACT**

This study investigated the effectiveness of the Snowball Throwing Game in enhancing seventh-grade students' vocabulary mastery at MTs GUPPI Kaluppang. The research employed a quantitative pre-experimental one-group pre-test and post-test design. Sixteen students were selected through purposive sampling. The main instrument was a 20-item vocabulary test consisting of 10 multiple-choice items and 10 matching-word items, administered before and after the treatment. Data collection was conducted in six meetings: a pre-test, two vocabulary teaching meetings, two Snowball Throwing treatment sessions, and a post-test. The results showed that the mean score increased from 65.00 in the pre-test to 75.63 in the post-test, producing a gain of 10.63 points. The paired sample t-test yielded  $t(15) = -3.686$  with  $p = 0.002$ , indicating a statistically significant difference between the two tests. The effect-size analysis produced Cohen's  $d = 0.922$  and Hedges'  $g = 0.898$ , both indicating a large effect. These findings show that Snowball Throwing can provide an active, repeated, and collaborative vocabulary-learning experience and is effective in enhancing students' vocabulary mastery in the context of a rural Islamic junior secondary school.

**Keywords:** Snowball Throwing Game; Vocabulary Mastery; EFL Students

### **INTRODUCTION**

Vocabulary mastery is a fundamental component of English language learning because learners need words to understand messages, construct sentences, and communicate ideas in spoken and written forms. Nation (2001) explains vocabulary knowledge as involving form, meaning, and use, while Schmitt (2000) emphasizes that vocabulary mastery extends beyond memorizing word lists to recalling and using words appropriately in different communicative situations. Richards and Renandya (2002) similarly position vocabulary as central to language proficiency

because limited lexical knowledge constrains comprehension and expression. For junior secondary students who are still developing basic English competence, vocabulary instruction therefore needs to provide repeated and meaningful opportunities to recognize, understand, and use new words.

The need for more effective vocabulary instruction was evident at MTs GUPPI Kaluppang. Classroom conditions described in the study indicated that students often had difficulty recalling recently taught words and applying vocabulary in contextual activities. Students also tended to be passive during vocabulary lessons and relied heavily on teacher explanation, memorization, and repetition. Such practices may help students remember word lists temporarily, but they provide fewer opportunities to process vocabulary actively or use it in interaction. Harmer (2007) argues that meaningful and engaging classroom activities are important for retention and confidence, particularly when learners are expected to move from recognition toward active use.

Interactive and cooperative learning strategies offer one possible response to these difficulties. Cooperative learning places students in situations where they participate, exchange information, and support one another during learning. Kagan (1994) explains that structured peer interaction can improve academic learning because students are required to process information through communication and collaboration. In vocabulary learning, this interaction is especially useful because learners can encounter the same words repeatedly while asking questions, clarifying meanings, and responding to their peers. Repeated exposure is important in vocabulary acquisition because it strengthens memory and makes retrieval more accessible (Nation, 2001).

Snowball Throwing is a cooperative game-based technique that combines questioning, peer interaction, and physical activity. In the procedure used in this study, students write vocabulary-related questions or responses on pieces of paper, crumple them into 'snowballs,' throw them to classmates, and respond to the material they receive. Suprijono (2013) describes Snowball Throwing as a cooperative learning technique that encourages active participation through questioning and responding. The activity changes vocabulary practice from a predominantly teacher-centered routine into an interactive task in which students repeatedly read, recall, and use vocabulary while working with classmates.

Previous studies reported positive outcomes from Snowball Throwing in vocabulary instruction. Rahmawati (2020) found that the technique enhanced vocabulary mastery and learning motivation among junior high school students. Nur and Amin (2021) reported stronger vocabulary achievement among students taught through Snowball Throwing than through conventional instruction, while Sari (2022) showed that the technique supported vocabulary recall and understanding through active classroom participation. Hidayat (2023) and Putri (2024) likewise reported improvement in students' vocabulary mastery after Snowball Throwing activities. However, the present study addresses a more

specific context: seventh-grade learners at MTs GUPPI Kaluppang, a rural Islamic junior secondary school with its own classroom conditions, learning resources, and patterns of English exposure. Accordingly, this study examined whether the Snowball Throwing Game significantly enhances students' vocabulary mastery at MTs GUPPI Kaluppang.

## **LITERATURE REVIEW**

### **Previous Related Study**

Previous studies on the Snowball Throwing technique consistently support its effectiveness in language instruction across various contexts. Rahmawati (2020) reported that Snowball Throwing improved vocabulary mastery, particularly word recognition and meaning comprehension, and increased learner participation. Nur and Amin (2021) found that students receiving Snowball Throwing instruction achieved higher vocabulary outcomes than students receiving conventional instruction. Sari (2022) found improvement in recall and understanding through active practice, whereas Hidayat (2023) reported gains in vocabulary mastery and confidence. Putri (2024) also found significant improvement among seventh-grade learners after the implementation of the game. Although these studies consistently support the technique, they were conducted in different educational settings and employed different research designs. The present research focuses specifically on seventh-grade students at MTs GUPPI Kaluppang and uses a pre-experimental one-group pre-test and post-test design. Its contribution is therefore contextual: it provides empirical evidence regarding the effectiveness and practical magnitude of Snowball Throwing for vocabulary learning in a rural Madrasah Tsanawiyah setting.

### **Vocabulary**

Vocabulary refers to the words learners recognize, understand, and use to communicate meaning. Vocabulary knowledge has receptive and productive dimensions: learners first need to recognize and comprehend words, and they gradually develop the ability to use them accurately in speaking and writing. Nation (2001) describes word knowledge through form, meaning, and use. Form includes pronunciation and spelling, meaning includes the concepts associated with a word, and use concerns the way a word functions appropriately in context. Schmitt (2000) similarly views vocabulary learning as a gradual process in which repeated encounters help learners move from initial recognition to more stable and usable knowledge. In the present research, vocabulary mastery was operationalized through students' performance on vocabulary tasks that required word recognition, comprehension of meaning, accurate use in simple contexts, and attention to pronunciation and spelling. These indicators reflect the study's emphasis on vocabulary as usable language knowledge rather than as isolated memorized items.

### **Snowball Throwing**

Snowball Throwing is a cooperative learning activity in which students produce questions or responses on paper, shape the paper into a ball, exchange it by throwing, and then respond to the item they receive. The technique promotes active participation because each student has a task to complete and must engage with vocabulary produced by peers. Suprijono (2013) identifies active questioning, responding, and peer interaction as central features of the method. Huda (2014) and Lie (2014) also emphasize that cooperative classroom structures can make learners responsible for both their own participation and the learning interaction of the group. For vocabulary instruction, the procedure provides several potential learning advantages; 1) students encounter vocabulary when preparing questions, 2) when reading a snowball received from another student, and 3) when formulating an answer. This creates repeated contact with word forms and meanings. The physical and game-like nature of the activity can also reduce monotony and encourage learners who are usually reluctant to participate. At the same time, peer interaction provides opportunities to clarify meanings and correct misunderstandings.

The relationship between Snowball Throwing and vocabulary learning can be explained through active processing, repetition, and collaborative interaction. Nation (2001) notes that repeated encounters support vocabulary acquisition, while Harmer (2007) stresses the importance of engaging activity for maintaining attention and confidence. During Snowball Throwing, learners do not merely receive vocabulary from the teacher; they manipulate the language by writing, reading, identifying meaning, and responding. This repeated processing can strengthen retention and make new vocabulary easier to retrieve. The cooperative dimension of the activity is also relevant. Kagan (1994) argues that learning can be strengthened when students interact around a shared academic task. In Snowball Throwing, peer questions create immediate reasons for students to recall vocabulary and communicate an answer.

## **METHOD**

### **Design and Samples**

The study employed a quantitative pre-experimental one-group pre-test and post-test design (O1-X-O2) at MTs GUPPI Kaluppang. The population comprised seventh-grade students of MTs GUPPI Kaluppang. Purposive sampling was used to select one class based on teacher recommendation, class stability, and representation of average academic ability, resulting in a final sample of 16 students who were at the early stage of English learning.

### **Instrument and Procedure**

The main instrument was a 20-item vocabulary test (10 multiple-choice items and 10 matching-word items) administered as pre-test and post-test, with a maximum score of 100. Data collection covered six meetings: Meeting 1 (pre-test), Meetings

2–3 (teaching vocabulary on animals, common nouns, body parts, and classroom objects), Meetings 4–5 (applying Snowball Throwing in small groups where students wrote, threw, and answered vocabulary questions), and Meeting 6 (post-test).

### Data Analysis

Pre-test and post-test scores were analyzed using descriptive statistics (frequency, percentage, minimum, maximum, mean, SD) and classified into five categories (excellent, good, fair, poor, very poor). A paired sample t-test was conducted at  $\alpha = 0.05$ , accompanied by Cohen's  $d$  and Hedges'  $g$  effect-size measurements.

## RESULT AND DISCUSSION

Before treatment, no student reached the excellent category; three (18.75%) were good, seven (43.75%) fair, one (6.25%) poor, and five (31.25%) very poor. This distribution indicates that vocabulary mastery was still limited before the Snowball Throwing treatment.

*Table 1*  
*Distribution of pre-test and post-test classifications*

| Classification     | Pre-test F | Pre-test % | Post-test F | Post-test % |
|--------------------|------------|------------|-------------|-------------|
| Excellent (90-100) | 0          | 0%         | 4           | 25%         |
| Good (80-89)       | 3          | 18.75%     | 4           | 25%         |
| Fair (70-79)       | 7          | 43.75%     | 3           | 18.75%      |
| Poor (60-69)       | 1          | 6.25%      | 4           | 25%         |
| Very Poor (<60)    | 5          | 31.25%     | 1           | 6.25%       |
| Total              | 16         | 100%       | 16          | 100%        |

After the treatment, four students (25%) reached the excellent category and four (25%) were in the good category. Three students (18.75%) were classified as fair, four (25%) as poor, and one (6.25%) as very poor. Although some students remained in the lower achievement categories, the distribution shifted upward overall. At the individual level, 12 of the 16 students obtained higher post-test scores, three recorded the same score, and one obtained a lower score. This pattern is consistent with the increase in the class mean after treatment.

The descriptive statistics show a clear increase in vocabulary achievement. The pre-test scores ranged from 30 to 85, with a mean of 65.00 and a standard deviation of 16.73. The post-test scores ranged from 40 to 100, with a mean of 75.63 and a standard deviation of 16.42. The mean therefore increased by 10.63 points. The maximum score also increased from 85 to 100, indicating that several students were able to reach a higher level of vocabulary performance after the Snowball Throwing activities.

*Table 2*  
*Descriptive statistics of vocabulary scores*

| Variable  | N  | Minimum | Maximum | Mean  | SD    |
|-----------|----|---------|---------|-------|-------|
| Pre-test  | 16 | 30.00   | 85.00   | 65.00 | 16.73 |
| Post-test | 16 | 40.00   | 100.00  | 75.63 | 16.42 |

A paired sample t-test was conducted to determine whether the improvement from pre-test to post-test was statistically significant. The mean difference for pre-test minus post-test was -10.625. The test produced  $t = -3.686$  with 15 degrees of freedom and a significance value of 0.002. Because the significance value was lower than 0.05, the null hypothesis was rejected and the alternative hypothesis was accepted. The improvement in students' vocabulary mastery after the Snowball Throwing treatment was therefore statistically significant.

*Table 3*  
*Paired sample t-test result*

| Comparison           | Mean Diff. | SD     | SE    | 95% CI Lower | 95% CI Upper | t      | df | Sig.  |
|----------------------|------------|--------|-------|--------------|--------------|--------|----|-------|
| Pre-test - Post-test | -10.625    | 11.529 | 2.882 | -16.768      | -4.482       | -3.686 | 15 | 0.002 |

Statistical significance indicates that the change is unlikely to be due to chance, but it does not by itself describe the magnitude of the treatment effect. The study therefore reported effect-size measures. Cohen's  $d$  was 0.922 and Hedges'  $g$  was 0.898. Both values were interpreted as large effects, showing that the difference between pre-test and post-test scores was not only statistically significant but also educationally meaningful for this sample.

*Table 4*  
*Effect-size results*

| Measure     | Value | Category |
|-------------|-------|----------|
| Cohen's $d$ | 0.922 | Large    |
| Hedges' $g$ | 0.898 | Large    |

The findings demonstrate that the Snowball Throwing Game significantly enhanced the vocabulary mastery of the seventh-grade students at MTs GUPPI Kalupang. The mean score increased from 65.00 to 75.63, and the paired sample t-test produced  $p = 0.002$ . The large Cohen's  $d$  value of 0.922 further indicates that the treatment had a substantial practical effect. These results support the central hypothesis of the study and show that a short sequence of structured Snowball Throwing activities can produce measurable vocabulary improvement in this classroom context.

One explanation for the improvement is the active participation required by the technique. During treatment, students were not limited to listening to an explanation or copying vocabulary. They prepared questions, handled the paper snowballs, read material received from classmates, and formulated answers. This sequence required repeated cognitive engagement with vocabulary and gave each learner an

observable role in the lesson. Suprijono (2013) argues that active participation is a central feature of Snowball Throwing, and the present findings suggest that such participation can translate into stronger vocabulary outcomes.

Repeated exposure is another important factor. Students encountered vocabulary during the initial teaching meetings and again during the two treatment sessions. Within the Snowball Throwing activity, the same vocabulary could be processed when a question was written, when a different student read it, and when an answer was produced. Nation (2001) emphasizes that repeated encounters are important in developing vocabulary knowledge because they strengthen connections between form and meaning. The gain of 10.63 points is consistent with the idea that vocabulary becomes more accessible when students revisit it through varied tasks rather than through a single presentation.

The game-based format may also have affected motivation and anxiety. The study describes the activity as more enjoyable and interactive than traditional vocabulary instruction and notes that students were encouraged to respond confidently during the second treatment session. Harmer (2007) argues that engaging classroom activities can increase motivation and willingness to participate. In this study, the physical act of exchanging ‘snowballs’ and responding to peer-generated questions created a learning atmosphere in which vocabulary practice was integrated with movement and social interaction. This may have helped students participate more readily, particularly those who were reluctant during teacher-centered activities.

Peer interaction provides a further explanation. Snowball Throwing requires students to read and answer material produced by classmates, creating opportunities to share knowledge and clarify meaning. Kagan (1994) describes cooperative learning as a structure in which interaction contributes to academic achievement. For students with limited exposure to English outside the classroom, this type of peer exchange can increase the amount of meaningful vocabulary processing available during a lesson. The cooperative element therefore complements the repetition and game features of the method.

The results are broadly consistent with previous research. Rahmawati (2020) reported improvement in vocabulary mastery and motivation after Snowball Throwing instruction. Nur and Amin (2021) found higher vocabulary achievement among learners taught through the technique than among those receiving conventional instruction. Sari (2022), Hidayat (2023), and Putri (2024) also reported positive vocabulary outcomes. The present study extends that body of evidence to the specific setting of a rural Islamic junior secondary school and adds effect-size evidence showing a large practical impact in the participating class.

The results should nevertheless be interpreted within the limitations of the research design. The study involved only 16 students, used one class without a control group, and implemented two formal Snowball Throwing treatment sessions within a six-meeting data-collection sequence. One student’s score decreased and several

students remained in the poor category after treatment, indicating that the technique did not affect every learner in the same way. Because there was no comparison group, other classroom or learner factors cannot be completely separated from the treatment effect. Future research should therefore involve larger samples, longer treatment periods, and experimental or quasi-experimental designs with control groups.

## CONCLUSION

This study concludes that the Snowball Throwing Game was effective in enhancing seventh-grade students' vocabulary mastery at MTs GUPPI Kaluppang. The mean vocabulary score increased from 65.00 on the pre-test to 75.63 on the post-test, a gain of 10.63 points. The paired sample t-test yielded  $t(15) = -3.686$  and  $p = 0.002$ , confirming a statistically significant difference, while Cohen's  $d = 0.922$  and Hedges'  $g = 0.898$  indicated a large practical effect. The improvement can be associated with the combination of active participation, repeated vocabulary exposure, game-based learning, and peer interaction embedded in Snowball Throwing. English teachers may use this technique as an alternative for vocabulary instruction, provided that instructions are clear and classroom movement is carefully managed. Future studies should test the technique with larger and more diverse samples, longer interventions, and comparison groups, and may investigate its application to other language skills such as speaking, reading, or writing.

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