



Improving Reading Comprehension Using Snowball Throwing Technique among Students at One of Public Vocational High School in EFL Context

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Abstract

This research investigates the effectiveness of the Snowball Throwing Technique (STT) in improving students' reading comprehension. The objective of this study was to determine whether there is a significant difference in students' reading comprehension before and after being taught using the STT. A quantitative method with a pre-experimental design was employed, involving one randomly selected class of tenth-grade culinary students at one of public vocational high school in Padang. Data were collected using a pre-test and post-test. The mean score of students' reading comprehension in the pre-test was 57.26, while the post-test score increased to 79.5. Based on the results of the paired t-test, the t-value (8.892) was higher than the t-table value (2.045), indicating a statistically significant improvement. These findings confirm that the Snowball Throwing Technique has a positive effect on enhancing students' reading comprehension skills. This study concludes that STT can be an effective teaching method to improve students' engagement and understanding in reading activities. This study contributes to educational research by offering empirical evidence that interactive, student-centred strategies like STT can improve reading outcomes, particularly in vocational school contexts. It supports the integration of collaborative techniques into English language teaching practices.

Keywords: Reading Comprehension, Snowball Throwing Technique, Vocational High School

INTRODUCTION

Reading is a fundamental aspect of language learning, particularly in English as a Foreign Language (EFL) settings. It serves not only as a medium for acquiring new information but also as a means to develop critical thinking, vocabulary, and overall language proficiency. Reading enables students to access academic content, understand cultural context, and

improve their ability to communicate effectively. As Kusumawanti (2018) notes, reading is central to students' academic success, as most learning activities begin with reading. In the context of vocational high schools, where English is a core subject, the ability to read and comprehend texts is essential for both academic and future workplace demands. Enhancing students' reading comprehension, therefore, is a priority in language instruction.

Despite its importance, teaching reading in the classroom often presents a range of challenges. Many students exhibit a low level of interest in reading activities, which affects their motivation and learning outcomes. One of the major issues teachers face is the students' limited vocabulary, which makes it difficult for them to understand the meaning of texts. This leads to frustration and disinterest in reading materials. Additionally, students often struggle to identify key components of texts, such as the main idea, supporting details, and textual structure. Understanding features like the generic structure and language elements of narrative or descriptive texts can also be difficult for them. Moreover, low student engagement, lack of classroom participation, and minimal interaction further hinder the learning process. These issues contribute to a less effective reading environment and prevent students from fully developing their reading skills.

Given these obstacles, it becomes necessary for teachers to implement creative and student-centred teaching strategies that actively involve learners in the reading process. Teachers play a crucial role in establishing a supportive classroom atmosphere and in choosing appropriate methods that can stimulate students' interest. Effective teaching methods should aim not only to deliver content but also to foster students' motivation, confidence, and engagement. In this context, cooperative learning strategies have gained attention as they promote interaction, teamwork, and critical thinking. One such strategy is the Snowball Throwing Technique (STT), which has been found effective in various educational settings.

The Snowball Throwing Technique is a form of cooperative learning where students are actively involved in both asking and answering questions. The method involves students writing questions related to the reading material on pieces of paper, forming them into "snowballs," and tossing them among peers. This engaging and playful activity is followed by group discussions and answering the questions received. The technique encourages participation, peer learning, and a dynamic classroom atmosphere. Wahidin (2020) found that students who engaged in Snowball Throwing activities found the learning process enjoyable and less stressful. Similarly, Ulmi (2024) reported that the technique significantly improved students' reading comprehension by encouraging interaction and reinforcing content understanding. Fatimah (2020) also supported the effectiveness of this strategy in reading instruction, emphasizing its ability to make learning more interactive.

The practical implementation of the Snowball Throwing Technique involves several stages. First, students are divided into small groups. Each student writes one or more questions based on the reading material. These questions are then formed into paper balls, or "snowballs," and tossed across the classroom. Each group catches and responds to a new

set of questions, initiating discussions and collaborative problem-solving. This process reinforces comprehension, encourages deeper engagement with the text, and develops communication skills. It also supports peer-assisted learning, where students can clarify concepts and share insights with one another.

The Snowball Throwing Technique not only makes learning fun but also builds soft skills such as leadership, teamwork, empathy, and responsibility. Students learn to cooperate with others, express their ideas clearly, and respect different perspectives. Moreover, the technique fosters a learning environment in which students feel safe to participate without fear of making mistakes. As a result, it helps build confidence and reduces the anxiety often associated with reading tasks.

However, like any instructional method, the Snowball Throwing Technique also has its limitations. Gani (2017) identifies several drawbacks, such as the potential for classroom noise and disruption, especially in larger groups or when students are not well-supervised. Additionally, if not properly planned, the technique can consume valuable instructional time or result in superficial learning if students generate overly simple questions. Teachers must, therefore, carefully structure the activity, provide clear guidelines, and monitor group interactions to ensure that learning objectives are met. Balancing the advantages and disadvantages of the technique is essential for achieving meaningful outcomes.

This study is grounded in both theoretical and practical considerations. Theoretically, it draws on principles of cooperative learning and constructivist pedagogy, which emphasize the active role of students in building knowledge through interaction and experience. Applied to the vocational high school context, this research addresses the practical need for engaging instructional strategies that align with students' future professional needs, where communication, collaboration, and problem-solving are critical skills.

Based on these considerations, this research aims to determine whether there is a significant effect of using the Snowball Throwing Technique on students' reading comprehension. By applying an interactive and student-centred method, this study seeks to offer a solution to common challenges in reading instruction and to enhance the effectiveness of English teaching in vocational settings. The results are expected to contribute to the improvement of pedagogical practices and provide insights for teachers seeking to improve reading comprehension among high school students.

Furthermore, the findings of this research have broader implications for the field of education, particularly in the context of vocational schools. As these institutions prepare students for the workforce, it is important that English instruction not only focus on academic achievement but also support the development of communication and interpersonal skills. By integrating techniques like Snowball Throwing into the curriculum, educators can create a more dynamic, inclusive, and skill-oriented learning environment. This study, therefore, aims to contribute to both the theoretical understanding of cooperative learning and the practical advancement of teaching strategies in vocational education.

LITERATURE REVIEW

Reading comprehension is a critical component of language acquisition and academic success. According to Grabe and Stoller (2011), reading involves decoding written language and constructing meaning through interaction with the text, background knowledge, and reading strategies. However, many students struggle with this skill due to limited vocabulary, low motivation, and lack of engagement with reading materials (Kusumawanti, 2018). These challenges are particularly common in vocational high school environments, where students may not view reading in English as directly relevant to their field of study.

To address these issues, educators have explored cooperative learning methods that promote student interaction and engagement. Johnson and Johnson (2009) emphasize that cooperative learning enhances comprehension by allowing students to learn from one another through discussion and collaborative problem-solving. One strategy grounded in this approach is the Snowball Throwing Technique (STT), a dynamic, group-based learning activity that transforms traditional question-and-answer routines into engaging and interactive exercises.

Several studies support the use of the Snowball Throwing Technique in improving reading skills. Wahidin (2020) found that STT increased students' interest and made reading activities more enjoyable. Ulmi (2024) demonstrated a measurable improvement in reading comprehension scores among students taught using STT, attributing the success to increased student participation and peer collaboration. Fatimah (2020) also reported that STT was effective in helping students understand reading materials more deeply and in promoting critical thinking.

Despite these positive findings, the implementation of STT in vocational high schools remains under-researched. Most studies have focused on general or junior high school populations, leaving a gap in understanding its effectiveness in more specialized educational contexts. Additionally, there is limited evidence on how STT impacts reading comprehension in subject-specific learning environments, such as culinary programs where vocational terminology and context may affect comprehension.

Therefore, this study aims to investigate the effectiveness of the Snowball Throwing Technique in improving reading comprehension among tenth-grade culinary students at SMKN 9 Padang. By examining the impact of STT in a vocational high school context, this research seeks to contribute to the development of more interactive and contextually relevant teaching strategies for English language learning.

METHODOLOGY

This study employed a quantitative research method, which involves collecting numerical data and analysing it using statistical techniques (Zulkifli, 2015). Specifically, a pre-experimental design was used, applying the one-group pretest-posttest design. This design involves measuring the participants' reading comprehension before and after an

intervention to assess its effect. The participants were tenth-grade culinary students from class X3 at one of public vocational high school in Padang. The sample was selected using a random sampling technique from a population of 30 students. Random sampling was conducted by assigning numbers to all students in the class and selecting participants through a random number generator to ensure unbiased selection. The instrument used to measure reading comprehension consisted of a reading test with 10 multiple-choice questions and 5 essay questions. The test was designed based on the reading materials used during the intervention, and its validity and reliability were confirmed through expert review and a pilot test, respectively. The tests were administered in paper form during classroom sessions.

Data collection involved administering a pre-test before implementing the Snowball Throwing Technique to establish baseline reading comprehension scores. The intervention consisted of four sessions, each lasting approximately 45 minutes, where students participated in Snowball Throwing activities in groups of 5–6. During the activity, students wrote questions related to the reading texts on paper “snowballs,” threw them to peers, discussed answers collaboratively, and reinforced comprehension through group discussions.

After the intervention, a post-test using the same instrument was conducted to measure any improvement in reading comprehension. The data were analysed using a paired-sample t-test with the help of SPSS version 25 to compare pre-test and post-test scores and determine the significance of the intervention effect. Ethical approval was obtained from the school authorities, and informed consent was secured from all participants prior to the study.

FINDINGS AND DISCUSSION

FINDINGS

The finding of this research based on the data analysis, the researcher found that the use of Snowball Throwing Technique in teaching reading at tenth grade culinary students of one of vocational high school in Padang has improved their reading comprehension. The total score of pre-test was 1718, while the total score of post-test was 2385. This research used t-test analysis on the level of significant (α) = 0.05 with the degree of freedom (df) = $N-1$, where N = Number of subject (30 students).

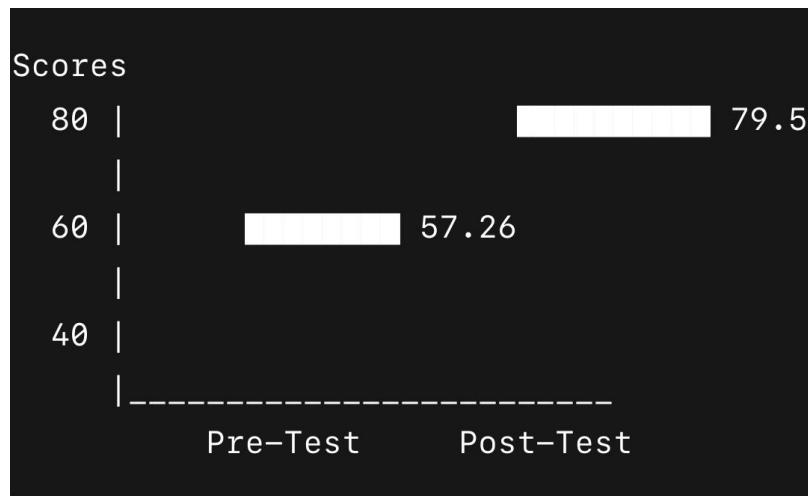


Figure 1. Students score Pre-test and Post-test

Figure 1 illustrates the improvement in students' reading comprehension scores from the pre-test to the post-test after the implementation of the Snowball Throwing Technique. The bar chart shows a clear increase in the average score, with the pre-test mean at **57.26** and the post-test mean rising to **79.5**. This significant gain visually demonstrates the effectiveness of the technique in enhancing students' reading comprehension. The upward shift in scores indicates that students were better able to understand, interpret, and analyse reading texts following the interactive and cooperative learning approach. The figure provides a clear comparison of students' performance before and after the intervention, reinforcing the statistical results of the study.

Table 1. Paired Sample t-test for Pre-test and Post-test Scores (N=30)

Test	Mean	t-value	df	p-value
Pre-test	57,26	8.893	29	<0.05
Post-test	79,5			

Table 1 presents the comparison of students' reading comprehension scores before and after the implementation of the Snowball Throwing Technique. The mean pre-test score was 57.26, which increased to 79.5 in the post-test. A paired-sample t-test was conducted to determine whether this improvement was statistically significant. The test results showed a t-value of 8.892 with 29 degrees of freedom, which is greater than the critical t-value of 2.045 at the 0.05 significance level. This indicates a significant difference between pre-test and post-test scores, confirming that the Snowball Throwing Technique effectively improved students' reading comprehension.

Table 2. Distribution of Students' Reading Comprehension Scores Before and After Intervention

Score category	Pre-test	Post-test
Very poor	4	0
Poor	13	1

Average	13	6
Good	0	15
Very good	0	8

Table 2 shows the distribution of students' reading comprehension levels before and after the intervention. Before the treatment, no students scored above the minimum passing grade (KKM), with 4 students scoring very poor, 13 poor, and 13 average. After applying the Snowball Throwing Technique, most students achieved higher levels, with 15 scoring good, 8 very good, 6 average, and only 1 poor.

DISCUSSION

The findings of this study indicate that the Snowball Throwing Technique (STT) significantly improved the reading comprehension of tenth-grade culinary students at SMKN 9 Padang. The increase in the mean score from 57.26 in the pre-test to 79.5 in the post-test, supported by the paired-sample t-test result ($t = 8.892$, $p < .05$), demonstrates that the observed improvement was statistically significant. This result suggests that the implementation of STT had a meaningful impact on students' ability to comprehend English reading texts in a vocational EFL context. Similar results have been reported in previous EFL studies showing that Snowball Throwing and other cooperative learning techniques significantly improve students' reading achievement and classroom engagement (Indrawati et al., 2023; Islamiati et al., 2024).

The improvement in students' reading comprehension can be explained through the interactive and cooperative nature of the Snowball Throwing Technique. STT requires students to actively generate questions, exchange ideas, and collaboratively construct meaning from texts. This process aligns with the interactive model of reading proposed by Grabe and Stoller (2011), which emphasizes that comprehension is achieved through the interaction between textual input, readers' background knowledge, and strategic processing. By engaging students cognitively and socially, STT moves reading instruction beyond passive decoding toward deeper comprehension and interpretation, as supported by cooperative learning theory (Johnson & Johnson, 2009).

The results of this study are consistent with previous research on cooperative learning in EFL and EAL classrooms. Numerous studies have demonstrated that cooperative learning strategies enhance reading comprehension, learner motivation, and active participation in language classrooms (Johnson & Johnson, 2009; Pan & Wu, 2013). Pan and Wu (2013), for example, found that cooperative learning significantly improved EFL students' reading achievement and learning motivation compared to traditional teacher-centred instruction. These findings indicate that structured peer interaction plays a critical role in facilitating deeper understanding of reading texts.

Research specifically examining the Snowball Throwing Technique further supports the findings of this study. Wahidin (2020) reported that STT increased students' engagement and reduced anxiety during reading activities, making learning more enjoyable and effective. Ulmi (2024) found that students taught using STT demonstrated significant gains in reading comprehension due to increased peer interaction and active involvement in the learning process. Indrawati et al. (2023) also showed that STT effectively improved students' comprehension of descriptive texts through structured peer questioning and collaborative discussion. In addition, Fatimah (2020) emphasized that STT encourages

students to analyse texts more critically, as they must understand the content sufficiently to formulate relevant questions. The present study extends these findings by confirming the effectiveness of STT in a vocational high school context.

The distribution of students' reading comprehension levels before and after the intervention further reinforces the effectiveness of STT. Prior to the treatment, most students were categorized as "poor" or "average," with no students achieving "good" or "very good" levels. After the intervention, the majority of students reached "good" and "very good" categories. This shift indicates not only cognitive improvement but also increased confidence and willingness to engage with English texts. Such affective gains are consistent with findings in EAL research suggesting that cooperative learning environments reduce learners' anxiety and foster a supportive atmosphere for language use (Johnson & Johnson, 2009; Pan & Wu, 2013).

In the context of vocational education, the effectiveness of STT is particularly relevant. Vocational students often perceive English reading as disconnected from their field of study, which can reduce motivation and engagement (Kusumawanti, 2018). The interactive nature of STT helps address this issue by making reading activities more meaningful and socially engaging. Moreover, STT supports the development of transferable skills such as communication, collaboration, and problem-solving, which are essential for students' future professional lives. From a constructivist perspective, learning occurs most effectively when students actively participate in knowledge construction through social interaction, a principle clearly reflected in the STT approach (Grabe & Stoller, 2011).

Despite its effectiveness, the Snowball Throwing Technique also presents challenges that must be carefully managed. As noted by Gani (2017), STT may lead to classroom noise, time constraints, and superficial questioning if not properly structured. In this study, the positive outcomes suggest that clear instructions, controlled group sizes, and consistent teacher supervision were critical in minimizing these limitations. Therefore, successful implementation of STT depends largely on the teacher's ability to design well-structured activities and maintain an effective learning environment (Johnson & Johnson, 2009).

Overall, this study provides empirical support for the use of the Snowball Throwing Technique as an effective cooperative learning strategy for improving reading comprehension in EFL vocational classrooms. By promoting active engagement, peer interaction, and meaningful text processing, STT addresses both the cognitive and affective challenges commonly encountered in reading instruction. These findings contribute to the broader body of EFL and EAL research advocating cooperative learning approaches and offer practical implications for teachers seeking to enhance reading comprehension in vocational high school contexts.

CONCLUSION

This study concludes that the Snowball Throwing Technique significantly enhances students' reading comprehension by promoting active participation, peer interaction, and deeper engagement with reading materials. The substantial improvement in students' ability to understand, interpret, and analyse texts indicates that this cooperative learning strategy is effective in transforming reading activities into more interactive and student-centred learning experiences. Moreover, the application of the Snowball Throwing Technique addresses common challenges in EFL reading instruction, including low learning motivation, limited vocabulary mastery, and passive classroom participation. By integrating this method into reading lessons, educators can foster a more dynamic, inclusive, and

supportive learning environment that encourages confidence and collaborative meaning-making among students. Importantly, this study contributes to educational science by providing empirical evidence that interactive and student-driven instructional techniques can significantly improve literacy outcomes, particularly in vocational education contexts where reading comprehension is essential for understanding academic and practical texts relevant to students' future professional needs.

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