

**The Effect of Using Spelling Bee Game on Student's Reading Comprehension of The Eighth-Grade at SMPN 7 Medan**

**Angelica Alexia Navaratna<sup>1</sup>, Maria Megantri Hutasoit<sup>2</sup>, Ester Enjelina Simanjuntak<sup>3</sup>, Natalia Widya Pasca Tarigan<sup>4</sup>**

<sup>1,2,3</sup>Mahasiswa Keguruan dan Ilmu Pendidikan Universitas Prima Indonesia

<sup>4</sup>Dosen Keguruan dan Ilmu Pendidikan Universitas Prima Indonesia

Email : [angelicalexia22@gmail.com](mailto:angelicalexia22@gmail.com), [mariamegan3008@gmail.com](mailto:mariamegan3008@gmail.com), [esterenjelinasimanjuntak@gmail.com](mailto:esterenjelinasimanjuntak@gmail.com), [Nataliatarigan@unprimdn.ac.id](mailto:Nataliatarigan@unprimdn.ac.id)

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**Abstract:**

*This research aims to determine wheater employing the language game Spelling Bee as a reading comprehension strategy for eighth-graders at SMPN 7 Medan in the academic year 2021/2022 is effective or not. This quantitative research with a quasi-experimental study utilizes a pretest, treatment, and post-test design. The population of this study is 288 eighth-grade students at SMPN 7 Medan in the academic year 2021/2022, and the sample is 40 students. The data is collected through a multiple-choice test consisting of 10 questions with four choices and the write-down of the meanings of 10 words. The Spelling Bee game contains the study's independent variable, while students' reading comprehension is the study's dependent variable. According to the computation, the post-test result shows that the experimental group's mean score is 85, which is considered good, and the control group's mean is 58,75, which is considered sufficient. It can be concluded that using the language game Spelling Bee as a strategy effectively improves students' reading comprehension at SMPN 7 Medan eighth-grade students in the academic year 2021/2022.*

**Keywords:** *Spelling Bee Game, Reading, Reading Comprehension*

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**INTRODUCTION**

In this chapter, the researcher will explain the background of the study, the study's problem, the study's objective, the significance of the

research, and the scope of the problem.

**Background of Study**

Many people are required to speak English because it is an international language. Mastering

English can positively impact social, educational, and professional life. For starters, when people have a good command of the English language, they can readily communicate with others. As previously stated, English is an international language that a large group speaks of people; therefore, if people understand English, they will interact easily with foreigners. Second, understanding English can assist people in obtaining a higher education and a better job. Furthermore, for students, English has become a significant factor in getting a scholarship, allowing them to achieve the education they choose.

English is a foreign language in Indonesia that needs to be taught from elementary school until university. The Indonesian government has declared that English is essential in all public schools. The Indonesian government has recently modified the curriculum. The former curriculum was KTSP (Kurikulum Tingkat Satuan Pendidikan), or the 2006 Curriculum. However, the 2013 Curriculum is now being used in Indonesia. English subjects are still required in the 2013 curriculum, but their forms have been reduced. Furthermore, the curriculum takes center stage in the teaching-learning activities. Regardless of changes in the curriculum, English remains one of the courses in the Indonesian National Examination. Many schools now use Curriculum 2013 in their lessons. One among them is SMPN 7 Medan, which forms the focus of this study.

There are four primary skills that the teacher at the school should teach. Listening, speaking, writing, and reading are all examples of skills. Students must be able to master all skills. Grammar, pronunciation, phonology, and vocabulary are only a few aspects of English that should be well-understood. "Without grammar, very little can be conveyed, and nothing can be conveyed without

vocabulary," Wilkins (in Thornbury, 2002:13) notes. Then, to be good English learners, students must understand all components. When students understand all of the elements, they will utilize English as effectively as possible in their daily lives.

Reading is one of the English skills. According to Tarigan (2008: 7), reading is a process through which a reader acquires a message that a writer delivers through words that the reader can see and understand. It's crucial to read effectively, and students will get a lot of knowledge by reading. Students can also learn new things via reading periodicals, newspapers, tabloids, and other publications. Moreover, students might also pass the time by reading novels, short stories, and other literary works. Learning English can also help them become more creative. Students can use their imagination to write if they are creative. For this reason, understanding English, particularly reading, is critical.

There are many issues that teachers and students face when teaching and studying reading. Teaching reading is a difficult task for teachers. English teachers have a significant responsibility to ensure that their students comprehend an English text. Teachers should select a suitable teaching approach for their students when teaching English. In reality, teachers teach their students by old methodologies such as reading books and regular practice. Students will be bored if they have to attend an English class. Teachers used to teach a book by having students read it and then complete the task in the classroom. These strategies have little impact on students' comprehension of the text. Students are lacking in vocabulary. One of the major issues is that they cannot memorize new words. Vocabulary is crucial in the teaching and learning of reading. Students can

readily learn and comprehend the content if they have a large vocabulary.

One alternative to teaching reading is to use a game to overcome these issues. Huyen and Nga (2003) also agree that "Students benefit from games because they help them relax and have fun. They make it easier for kids to remember and understand new words ". The Spelling Bee Game is an excellent game for increasing kids' vocabulary. According to Uranga (in Rahayu, 2009), a Spelling Bee is a competition where participants correctly spell words. Teachers can quickly and successfully teach their students with this game. Students will gain more vocabulary by accurately spelling the terms and comprehending their meanings. Students will be more motivated to participate in the English class learning process if they use this game.

## RESEARCH METHOD

### Design of the Research

This research will carry out using the experimental research quantitative method. According to Cohen (2007), quasi-experimental research design has some fundamental characteristics of an actual experiment. The research design includes an experimental group and a control group to determine the effect of the Spelling Bee Game on Reading Comprehension.

**Table 1. Research Design**

Class	Pretest	Treatment	Post-test	
<b>Experimental</b>	Y1	X	Y2	Y1- Y2
<b>Control</b>	Y1	-	Y2	Y1- Y2

Note: Y: Pretest to experiment class and control class. Post-test to experiment class and control class.

X: Receiving treatment, that is using the Spelling Bee Test technique

*John. W. Creswell, Educational Research, fourth edition, (United States of America: Pearson Education,2012), p.294*

### The Location and Population of the Research

According to Creswell (2012), "survey designs are procedures in quantitative research in which you administer a survey or questionnaire to a small group of people (called the sample) to identify trends in attitudes, opinions, behaviors, or characteristics of a large group of people (called the population)."

The research participants are eighth-grade students' from SMPN 7 Medan, located on Jl. H. Adam Malik No.12, Silalas, Kec. Medan Bar., Kota Medan, Sumatera Utara. This study will undertake four meetings from January 17<sup>th</sup> until January 19<sup>th</sup>,2022. As a result, the researcher will utilize 40 students as samples in this research, divided by 20 students from VIII-4 as experimental class and 20 from VIII-7 as control class. Here's a look at a sampling of the research:

**Table 2. The Total Sample of the Research**

Classes	Total	
<b>VIII-4</b>	20	Experimental Class
<b>VIII-7</b>	20	Control Class

### Instrument of the Research

Arikunto (2009: 53) states There are two types of research instruments. They are test and non-test. This research instrument uses a test. The type of test is a vocabulary test based on a short story. The test consists of two parts: a pretest and a post-test. The test consists of 20 questions, of which ten multiple-choice questions contain four options for each number.

And ten more questions, students are created to write down the meaning of 10 words.

### Technique of Collecting Data

This instrument would evaluate students' reading comprehension differences between pretest and post-test and check if the treatment influenced the post-test results.

#### 1. Pretest

Before the students teach about the Spelling Bee Game, a pretest is performed to obtain data on students' reading comprehension of a short tale. Both the experimental and control groups received it.

#### 2. Treatment

The treatment will give by the researcher, who uses the Spelling Bee game to teach reading. During the treatment, the researcher will carefully explain the contents so that students may grasp them. It was given to the experimental group only. In this treatment, the researcher will provide a short story text to the students, and the teacher and the students will look for words that junior high school students rarely hear. After that, the researcher will tell the students to spell the words correctly.

#### 3. Post-test

After the students teach about the Spelling Bee Test, a post-test is performed to obtain data on students' reading comprehension of a short tale. Both the experimental and control groups received it.

### Technique of Analysis Data

The test data is utilized to determine the outcome of students' vocabulary by using the spelling bee game in the experimental class and without using the spelling bee game in the control class. Before analyzing the data, the research collected it and analyzed it using the following procedures:

1. Analyzing the pretest data in its raw form. Each student will receive 5 for the correct answer and 0 for the incorrect one.
2. Using the following formula, raw scores will be transformed to a set of core maximums of 100.
3. Score = 
$$\frac{\text{The total of the students' correct answer}}{\text{total number}} \times 100$$
4. The researcher will use the following criteria to classify the test's score:

Table 3. The Classification of Students' Score

The Score Level	Category
<b>90-100</b>	Verry Good
<b>70-89</b>	Good
<b>50-69</b>	Enough
<b>30-49</b>	Less
<b>0-29</b>	Fail

## RESULT AND DISCUSSION

The researcher explains the findings and the research's examination into using the language game of Spelling Bee as a strategy in teaching reading in this chapter. The data analysis and standard deviation are also presented in this chapter.

### Data Description

The researcher used quasi-experimental quantitative analysis in this study. The sample of this study is SMPN7 Medan eighth-grade students in the school year 2021/2022. The researcher decides to collect samples from two classes of the population. The researcher chooses the experimental group and the control group. The experimental group is class VIII -4, which consists of 20 students, and the control group is class VIII-7, which consists of 20 students. The total number of students in this research's sample is 40. The data is collected by assigning a pretest and a post-test to the sample. The test

consists of 20 questions divided into ten multiple-choice questions and a task to write down the meanings of ten words.

### 1. Pretest

The researcher held the experimental and control group pretest on April 17<sup>th</sup> – 19<sup>th</sup>, 2022. The test consists of 20 questions and is a multiple-choice and translation test. The researcher calculates the experimental and control groups' pretest in this discussion. The experimental and control groups' pretest results are listed below.

Table 4. The Result of Pretest from Experimental and Control Group

No.	Sample	Score	
		Experimental	Control
1	Sample 1	80	55
2	Sample 2	60	75
3	Sample 3	10	70
4	Sample 4	55	30
5	Sample 5	65	45
6	Sample 6	60	65
7	Sample 7	70	40
8	Sample 8	15	55
9	Sample 9	60	35
10	Sample 10	45	70
11	Sample 11	90	65
12	Sample 12	45	40
13	Sample 13	55	55
14	Sample 14	35	50
15	Sample 15	40	25
16	Sample 16	55	30
17	Sample 17	65	65
18	Sample 18	80	15

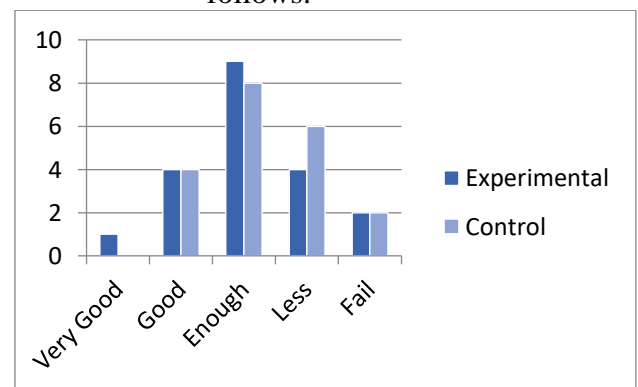
19	Sample 19	75	70
20	Sample 20	60	55

The experimental and control groups' pretest results are distributed in the following table based on Arikunto's (2009: 245) classification of students' achievement:

Table 5. The Frequency of Students' Score in Pretest

Interval	Interpretation	Frequency		Percentage	
		Exp	Cont	Exp	Con
90-100	Very Good	1	0	5%	0%
70 – 89	Good	4	4	20%	20%
50 -69	Enough	9	8	45%	40%
30 – 49	Less	4	6	20%	30%
0 - 29	Fail	2	2	10%	10%
<b>Total</b>		20	20	100%	100%

The post-test research findings are also presented in the form of a chart, as follows:



Picture 1. The Frequency Distribution of Students' Score in Pretest

The chart above shows the pretest result from the experimental and control group. In the experimental group, one student belongs to the very good category, four students belong to the good category, nine students belong to the enough category, four students belong to the less category, and two students belong to the fail category.

In the control group, no student belongs to the very good category. Four students belong to the good

category, eight students belong to the enough category, six students belong to the less category, and two students belong to the fail category.

## 2. Post-test

On April 17th – 19th, 2022, the researcher held a post-test for both the experimental and control groups. The researcher estimates the post-test results of the experimental and control groups in this discussion. The experimental and control groups' post-test result scores are listed below.

**Table 6. The Post-test Result of Experimental and Control Group**

No.	Sample	Score	
		Experimental	Control
1	Sample 1	100	75
2	Sample 2	90	80
3	Sample 3	95	85
4	Sample 4	100	50
5	Sample 5	90	55
6	Sample 6	75	70
7	Sample 7	65	55
8	Sample 8	100	65
9	Sample 9	100	50
10	Sample 10	75	70
11	Sample 11	50	65
12	Sample 12	80	55
13	Sample 13	95	65
14	Sample 14	60	40
15	Sample 15	85	60
16	Sample 16	80	65
17	Sample 17	90	35

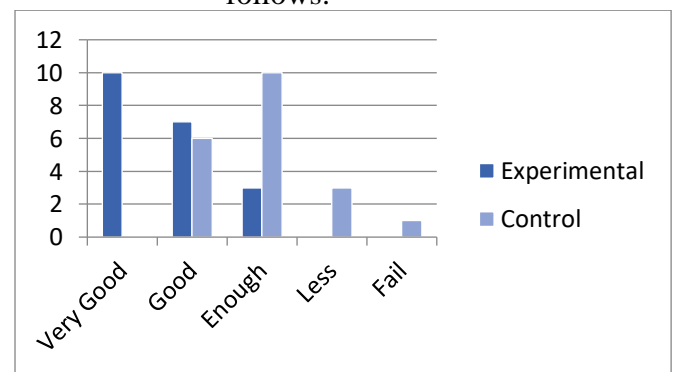
18	Sample 18	100	40
19	Sample 19	70	70
20	Sample 20	100	25

The experimental and control groups' post-test results are distributed in the table below based on Arikunto's (2009: 245) classification of students' achievement:

**Table 7. The Frequency Distribution of Students' Score in Post-Test**

Interval	Interpretation	Frequency		Percentage	
		Exp	Cont	Exp	Con
90-100	Very Good	10	0	50%	0%
70 – 89	Good	7	6	35%	30%
50 -69	Enough	3	10	15%	50%
30 – 49	Less	0	3	0%	15%
0 - 29	Fail	0	1	0%	5%
<b>Total</b>		20	20	100%	100%

The post-test research findings are also presented in the form of a chart, as follows:



**Picture 2. The Frequency Distribution of Students' Score in Pretest**

The chart above shows the pretest result from the experimental and control group. In the experimental group, ten students belong to a very good category, seven students belong to the good category, three students belong to the enough category, and no student belongs to the less and fails category.

In the control group, no students belonged to the very good category.

Six students belong to the good category, ten students belong to enough category, three students belong to the less category, and one student belongs to the fail category.

### 3.2 Data Analysis

The researcher uses a statistical procedure to estimate the mean value (M) and standard deviation (SD).

#### 1. Pre-test Experimental and Control Group

##### a) Mean

To determine the mean score, use the formula below:

##### Experimental Group

$$M = \frac{\sum X}{N}$$

$$M = \frac{1120}{20}$$

$$M = 56$$

##### Control Group

$$M = \frac{\sum X}{N}$$

$$M = \frac{1010}{20}$$

$$M = 50,5$$

##### b) Median

The experimental group's median is 60, while the control group's is 55.

##### c) Mode

The experimental group's mode is 60, while the control group's is 55.

##### d) Maximum

The experimental group's highest score is 90, while the control group's is 75.

##### e) Minimum

The experimental group's lowest score is 10, while the control group's is 15.

##### f) Standard Deviation

The standard deviation is calculated as follows:

##### Experimental Group

$$SD = \sqrt{\frac{\sum(x - y)^2}{n - 1}}$$

$$SD = \sqrt{21,68}$$

$$SD = 4,65$$

##### Control Group

$$SD = \sqrt{\frac{\sum(x - y)^2}{n - 1}}$$

$$SD = \sqrt{15,77}$$

$$SD = 3,97$$

##### g) Variance

The computation of variance is as follows:

##### Experimental Group

$$S^2 = \frac{\sum(x - y)^2}{n - 1}$$

$$S^2 = \frac{412,10}{20 - 1}$$

$$S^2 = \frac{412,10}{19}$$

$$S^2 = 21,68$$

##### Control Group

$$S^2 = \frac{\sum(x - y)^2}{n - 1}$$

$$S^2 = \frac{299,73}{20 - 1}$$

$$S^2 = \frac{299,73}{19}$$

$$S^2 = 15,77$$

##### h) Range

The formula to calculate the range is as follows:

Range = the highest score – the lowest score

##### 1) Experimental Group

The highest score = 90  
The lowest score = 10  
Range = 90-10 Range = 80  
According to the computation, the range of the experimental group is 80.

##### 2) Control Group

The highest score = 75  
The lowest score = 15  
Range = 75 – 25 Range = 60  
According to the computation, the range of the control group is 60.

#### 2. Post-test Experimental and Control Group

##### a) Mean

To determine the mean score, use the formula below :

##### Experimental Group

$$M = \frac{\sum X}{N}$$

$$M = \frac{1700}{20}$$

$$M = 85$$

##### Control Group

$$M = \frac{\sum X}{N}$$

$$M = \frac{1175}{20}$$

$$M = 58,75$$

##### b) Median

The experimental group's median is 90, while the control group's is 62.5.

**c) Mode**

The experimental group's mode is 100, while the control group's is 65.

**d) Maximum**

The experimental group's highest score is 100, while the control group's is 85.

**e) Minimum**

The experimental group's lowest score is 50, while the control group's is 25.

**f) Standard Deviation**

The standard deviation is calculated as follows :

$$SD = \sqrt{\frac{\sum(x - y)^2}{n - 1}} \quad SD = \sqrt{\frac{\sum(x - y)^2}{n - 1}}$$

$$SD = \sqrt{12,04} \quad SD = \sqrt{12,58}$$

$$SD = 3,46 \quad SD = 3,54$$

**g) Variance**

The computation of variance is as follows:

$$S^2 = \frac{\sum(x - y)^2}{n - 1} \quad S^2 = \frac{\sum(x - y)^2}{n - 1}$$

$$S^2 = \frac{228,94}{20 - 1} \quad S^2 = \frac{239,14}{20 - 1}$$

$$S^2 = \frac{228,94}{19} \quad S^2 = \frac{239,14}{19}$$

$$S^2 = 12,04 \quad S^2 = 12,58$$

**h) Range**

The formula to calculate the range is as follows:

Range = the highest score – the lowest score

**1) Experimental Group**

The highest score = 100

The lowest score = 50

Range = 100 - 50 Range = 50

According to the computation, the range of the experimental group is 50.

**2) Control Group**

The highest score = 85.

The lowest score = 25.

Range = 85 - 25 Range = 60.

According to the computation, the range of the experimental group is 60.

Based on the calculations above, the experimental and control groups' reading comprehension scores are reported in the table below.

**Table 8. The Reading Comprehension Result Pre-Test of Experimental and Control Group**

Group	H	L	R	Me	Mo	T	M	SD
Experimental	90	10	80	60	60	20	56	4,65
Control	75	15	60	55	55	20	50,5	3,97

**Table 9. The Reading Comprehension Result Post-Test of Experimental and Control Group**

Group	H	L	R	Me	Mo	T	M	SD
Experimental	100	50	50	90	100	20	85	3,46
Control	85	25	60	62,5	65	20	58,75	3,54

Note:

H : the highest score

Mo : the mode

L : the lowest score

T : the total of the students

R : the range

M : the mean

Me : the median

SD : the standard deviation

The following is the outcome of statistical analysis using SPSS to check that the manual computation is correct.

**Table 10. Descriptive Statistic**

		Statistics			
		Pre-Exp	Pre-Con	Post-Exp	Post-Con
N	Valid	20	20	20	20
	Missing	0	0	0	0
Mean		56	50,5	85	58,75
Median		60	55	90	62,5
Mode		60	55	100	65

Standard Deviation	4,65	3,97	3,46	3,54
Variance	21,68	15,77	12,04	12,58
Range	80	60	50	60
Maximum	90	75	100	85
Minimum	10	15	50	25
Sum	356	260	475	235

As a result, the latest results may be able to answer the following problem formulation:

1. The experimental group's reading comprehension at SMPN 7 Medan in the 2021/2022 academic year. The experimental group's highest and lowest scores are 100 and 50, respectively. The experimental group's mean is 85, with a standard deviation of 3,46 and a variance of 12,04. It signifies that the eighth-grade students in the experimental group at SMPN 7 Medan have excellent reading comprehension scores. From a total of 20 students, 50% (10 students) received the very good category, 35% (7 students) received the good category, and 15% received enough category (3 students).
2. The control group's reading comprehension at SMPN 7 Medan in the 2021/2022 academic year. The experimental group's highest and lowest scores are 85 and 25, respectively. The control group's mean is 58,75, with a standard deviation of 3,54 and a variance of 12,58. The eighth-grade students in the control group at SMPN 7 Medan have sufficiently reading comprehension scores. From a total of 20 students, 30% (6 students) received the good category, 50% (10 students) received enough category, 15% received less category (3

students), and 5 % received the fail category (1 student).

3. The researchers found that after treating the experimental group, the post-test score was higher than the pretest score. That means eighth-grade reading comprehension at SMPN 7 Medan was affected in the 2021/2022 academic year. According to the data analysis findings, employing the language game of Spelling Bee as a strategy for teaching reading comprehension is effective.

## CONCLUSION

Based on the data that have been collected and analyzed, it may be concluded as follows:

Reading comprehension of the eighth-grade students of SMP N 7 Medan in the academic year of 2021/2022 was affected after using the spelling bee game. The experimental group's reading comprehension achievement has an "excellent" result on their reading comprehension from the analyzed data. From 20 samples, the students that got a very good category is 50% (10 students), a good category is 35% (7 students), and enough is 15% (3 students). Then, the reading comprehension achievement of the control group has a good result on their reading comprehension. From 20 samples, the students that got very good category is 0% (0 students), good category is 30% (6 students), enough category is 50% (10 students), and less category is 15% (3 students) and fail category is 5% (1 student).

Based on the data collected and analyzed, it may be concluded that using the language game Spelling Bee as a strategy in teaching reading comprehension is "effective," especially for the experimental group of students who get treatment after their pretest.

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