The Implementation of Problem Based Learning in Improving Students Reading Comprehension Through Small Group Discussion Strategy

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ABSTRACT

The purpose of the study was to know implementation of Problem Based Learning Model through small group discussion to improve student's Reading Comprehension. This study was conducted at SMKS Kr. Solagratia Tongkaina-Manado. The design of this study was pre-experimental with one group pre-test and post-test design. The subject in study was eleventh grade of Perhotelan class were academic year 2023/2024, which consisted of 15 students. The data collected through objective test with multiple choice. The data were analyzed by comparing the mean score of the test. The mean score of the post-test (T2) is 7.3 than those of pre-test (T1) 5.2. This heads to conclusion by implementing Problem Based Learning Model through small discussion could be improve students' ability in Reading.

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INTRODUCTION

Reading in English is a complicated process for beginners. This can occur for several possible reasons. They may have limited prior knowledge about the content being read or have limited vocabulary knowledge. In addition, they find it difficult to grasp the meaning of difficult words, sentences and passages. They also struggle with the mechanics of reading. They may also have difficulty determining what information is important in written passages (see Logsdon, 2018), because they do not know how information in the text is structured. All these lead to difficulty comprehending what is being read.

According to schema theory (Rumelhart & Ortony, 1977), comprehending a text is an interpretive process involving the reader's background knowledge and the text itself. In the process, a reader tries to look into a written text and starts to absorb the information from the written linguistic message. He or she relies not only on linguistic message in the text, but also on his/her background knowledge. Successful comprehension results from the reader' ability to make maximal use of both his/her knowledge of the language and relate what is in the text with his/her related background knowledge.

To face the era of the globalization Industrial Revolution 4.0. The Students must be equipped with higher order thinking skills. One of the HOTS-oriented learning models and suggested in the implementation of the 2013 Curriculum is the Problem Based Learning model which guides students to observe (read) problems, write down solutions and present the results in front of the class, learning models that prioritize learning strategies by using problems from the world real as a context for students to learn about critical thinking and problem solving skills, as well as to acquire essential knowledge and concepts from the material they are studying. In Problem Based Learning students are required to be able to solve real problems in everyday life (contextual). In other words, Problem Based Learning teaches students to think critically and analytically, and find and use appropriate learning resources to solve the problems they face.
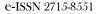
The above problems should be solved. Group discussion is one strategy considered effective to solve such problem. Group discussion, also called group work, is a way of cooperative learning (LI Juan, 2014). Furthermore, such a kind of learning demands active interdependence, individual contribution, and interpersonal skills, face-to-face interaction and course analysis (David, 2004). Since two students have the same linguistic and background knowledge, in group discussion one's limited knowledge of the language and/or background knowledge can be compensated by others in the group. Nuttal (1982:162) argues that by the dividing the class in two groups you make it possible for the student to help one another. Based on the explanation, to overcome the problems faced by students, the authors use Problem Based Learning as a learning model through small group discussion.

METHOD

The aim of this research is to know The Implementation of Problem Based Learning in Improving Students Reading Comprehension Through Small Group Discussion. This research is quantitative because the data is in form of the test scores reflecting students' ability in reading. In terms of it is kind, this research is pre-experiment research using one group pretest-posttest design. Hatch and Farhady (1982:20) state "one group pretest-posttest design similar to the one shot case study. The design is shown below.

Table 1. One group pretest-posttest design

Pretest	Treatment	Posttest

T₁	X	T₂

Hatch and Farhady (1982: 20)

The study will be conducted at SMK Solagratia Tongkaina in Manado City, Bunaken Region. The study will involve 15 Eleventh graders of Perhotelan students. In this research, the data collect will be an objective test in multiple–choice format. The test consists of ten (10) item. The validity of the test will be determined by using expert judgment technique. The data collected will be statistically analyzed using descriptive statistics. For this purpose, frequency distribution of scores, mean and standard deviation will be computed. The mean will be computed using this formula:

$$\text{Mean (X)} = \frac{\sum x}{n}$$ (Hatch and Farhady, 1982: 20)

Legend :

$\overline{X}$ = Mean score

$\sum x$ = The total score of students

n = The total number of students

The standard deviation will be computed using raw score formula:

$$s = \sqrt{\frac{\sum x^2}{N} - (\overline{X})^2}$$ (Moore, 1983:251)

Legend:

s = Standard deviation

$\overline{X}^2$ = Mean square

N = Total number of subjects.

RESULT AND DISCUSSION

The present study involved second grade Perhotelan class at SMKS Solagratia Tongkaina as the subject of the study. Results of the pretest and posttest are presented in Table 2.

Table 2. The score of Perhotelan in pretest and Posttest

N o	Pretest	Posttest
1	4	7
2	6	6
3	7	9
4	5	6
5	5	7
6	7	9
7	4	7
8	6	5
9	6	8
10	5	9
11	4	8
12	6	7
13	5	8

14	4	7
15	5	8

As has been pointed out, the pretest and posttest data in Table 2 were statistically analyzed using descriptive statistics. The analysis was focused on computation of frequency distribution, mean and standard deviation of both groups of data. Frequency distribution of scores o the two groups of data were computed using the formula Results of the computation are shown in Table 3.

Table 3. Frequency Distribution of Pretest Scores (X)

Score	Tally	Frequency	Percentage	CF	CP
7	II	2	13	15	100
6	IIII	4	27	13	87
5	IIIII	5	33	9	60
4	IIII	4	27	4	27

Note:
CF   = cumulative frequency
CP   = cumulative Percentage

As shown in Table 3, the highest score in the pretest was 7 and the lowest, 4. Two students (or 13%) got a 7, four students (or 27%) got a 6, five students (or 33%) got a 5 and four students (or 27%) got a 4. As with pretest data, posttest data were computed using the same formula, and the results were presented in Table 4.

Table 4. Frequency Distribution of Posttest Scores (X)

Score	Tally	Frequency	Percentage	CF	CP
9	III	3	20	15	100
8	IIII	4	27	12	80
7	IIIII	5	33	8	53
6	II	2	13	3	20
5	I	1	7	1	7

As shown in Table 4, the highest score in the posttest was 9 and the lowest 5. Of   15 students who took the test, three students (or 20%) got a 9, four students (or 27%) got an 8, five students (or 33%) got a 7, two students (or 13%) got a 6, and one student (or 7%) got a 5. To compute the mean and standard deviation of the two groups of data, it is necessary to firstly calculate the sums and sums squares of each of the data, Based on the data in Table 1, the following are obtained.

Table 4.   Sum & Sum Square of X & Y

Pretest		Posttest	
$\sum X$	79	$\sum Y$	111
$\sum X^2$	431	$\sum Y^2$	822
N	15	N	15

Using mean formula (see table 1), the mean of the pretest and posttest were then computed.

$$\bar{X} = \sqrt{\frac{79}{15}} = 5.2$$

$$\bar{Y} = \sqrt{\frac{111}{15}} = 7.3$$

Standard deviation was computed using raw score method:

$$Sd_x = \sqrt{\frac{431}{15}} - (5.2)^2 = \sqrt{28.7 - 27.4} = \sqrt{1.3} = 1.1$$

$$Sd_y = \sqrt{\frac{841}{15}} - (7.3)^2 = \sqrt{56 - 53.2} = \sqrt{2.8} = 2$$

The mean and standard deviation computations results in pretest mean was 5.2, and the posttest was 7.3. Furthermore, using the raw score formula, the standard deviation of the pretest data was 1.1, and the posttest 2. To sum up, results of descriptive statistic analysis of both groups of data, the following were obtained:

	Mean	Sd	highest bound	Lowest bound	range
Pretest	5.2	1.1	7	4	4 - 7
Posttest	7.3	2	9	5	5 - 9

From the data above, we know that: (1) the lowest score of pretest was 4 and posttest was 5 while the highest of pretest was 7 and posttest was 9. (2) The sum of pretest score was 79 while the posttest 111. (3) the mean of the pretest score was 5.2 while the posttest was 7.3. Standard deviation of pretest was 1.1 while posttest was 2. The result of pretest shows that the students' were still low in learning reading before applying the small group discussion as strategy. The result of posttest indicates that the student in teaching reading using small group discussion was increased after apply the treatment. Based on the description above, it could be conclude that using small group discussion with Problem Based Learning model is effective to increase student reading comprehension.

CONCLUSION

The conclusion can be made from the implementation of Problem Based Learning Model through small group discussion to improve student's Reading Comprehension that using small group discussion wit Problem Based Learning is effective to increase student reading comprehension. The English teachers are recommended to choose and use this technique in their English teaching and learning process. To further support the finding of this study, it is for other researcher to conduct advanced research and expand on the material and the other populations.

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