

PROMOTING DISCOVERY LEARNING METHOD FOR EFL STUDENTS IN READING COMPREHENSION

Muliati, Ulfah Syam

*Universitas Bosowa, Makassar, Indonesia
muliati@universitasbosowa.ac.id, Syam_ulfah@yahoo.com*

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ABSTRACT

This research aims to examine the impact of discovery learning method and to know the significance of discovery learning method on students' reading comprehension. This research used pre-experimental method with one group in pre test and post test. The treatment conducted after the pre test and before post test. The impact of discovery learning method and the significance of discovery learning method would be considered in learning reading. This research is restricted to students' reading comprehension in SMPN 01 Barru. The finding revealed that before applying discovery learning method students have difficulties in answering reading comprehension test. Meanwhile, after giving treatment and distributing post-test, the students have reading skill increase significantly. However, the students resource issues that are dominated by the difficulties in reading English, the limitation of vocabulary that they have, and the strategies that teacher used in teaching and learning reading. The Significance of the research are expected to provide data and information about the implementing of discovery learning method teaching and learning reading. By knowing the students' comprehension in reading English, the teacher can apply designing material, strategies, and activities based on their students' reading comprehension. It is obviously more effectively run the teaching and learning reading in the classroom.

Keywords: *Discovery learning method, reading comprehension, students, promoting*

INTRODUCTION

Research has shown that reading is only incidently visual. More information is contributed by the reader than by the print on the page. That is, readers understand what they read because they are able to take the stimulus beyond its graphic representation and assign it membership to an appropriate group of concepts already stored in their memories (Whittaker & Lovie-Kitchin, 1993 and Hermawan, 2011). This is supported by Brown (2007) stated that skill in reading depends on the efficient interaction between linguistics knowledge and knowledge of the world.

There some problems in teaching and learning of reading at school. Kweldju (2002) stated that students spend much of their time looking up meanings of words in dictionaries, a task they find very boring. Some often pay translators to translate for them. This attitude to learning new words often means that students acquire limited vocabularies and this restricts their understanding of the meaning of the English textbooks they read.

The main goal in teaching reading at school is to develop students' reading skills (Paribakht & Wesche, 1993; Pourhosein Gilakjani & Sabouri, 2016; Nergis, 2013) and therefore students are suggested to understand reading English texts effectively and efficiently. Ariwiyati (1997) stated that there some the goals of reading namely increasing the basic comprehension skills and therefore students able to read and understand texts of a general nature; to improve their general knowledge; to assist them identify the reading purpose; to help them adapt their reading strategies to the task; and to encourage the development of the ability to read critically. If adopted, these objectives could help teachers design a syllabus that assists students achieve their reading goals.

In sum, the teaching and learning process for teaching and learning reading needs to consider teaching and learning method, and as such, this research considers the case for discovery learning method on reading comprehension at SMPN 01 Barru.

This research generally focuses on discovery learning method on students' reading comprehension (Kusumawardhani et al., 2019; Ro, 2016; Pourhosein Gilakjani & Sabouri, 2016). In particular this study is aimed at examining the impact of discovery learning method and knowing the significance of discovery learning method on students' reading comprehension.

MATERIALS AND METHODS

Previous Related Studies

Finding the students' comprehension in reading English has been the interest of researchers to reveal. Various research types and methods were employed to explore the case (Janssen et al., 2014; Singaravelu, 2012; Cahyani & Yulindaria, 2018; Joy 2014) have conducted a research to observe the impact of discovery-based learning method on senior secondary school physics in Awgu education zone and he adopted a descriptive survey design. According to Joy (2014) discovery-based learning method assisted to a great extent in effective teaching and learning of Physics (Joy, 2014). The participants classified by gender did not differ on the extent to which discovery-based learning method helped in effective teaching and learning, improved students' knowledge and promoted research in Physics (Joy, 2014). Additionally, Singaravelu, (2012) argued that the effectiveness of

Discovery Learning method in learning English Grammar for the learners is particularly beneficial for any students who learn EFL/ESL, discovery learning is a highly student-centered and self-directed form of learning.

Moreover, Zahara et al., (2020) investigated the impact of using guided discovery in teaching reading comprehension. This study implemented quasi-experimental method by pre-test and post-test control group design. Experimental group and control group were selected for obtaining data. The use of t-test for analyzing data. The finding revealed that there was significant difference between students who were taught by guided discovery and students who were not taught by guided discovery at the eleventh-grade students of MAN Arahan.

Furthermore, Rahmi and Ratnaida (2014) conducted research on the use of discovery learning strategy in teaching reading report texts to senior high school students. They suggested that there six stages for discovery learning strategy activity, namely; stimulation, problem statement, data collection, data processing, verification, and generalization. The advantages of discovery learning strategy (1) enhancing students' vocabulary, (2) highly motivation for students, (3) intending students' improvement (4) more be creative (5) teaching knowledge and skills (6) improving students' self confidence.

From the studies above, it can be inferred that; firstly, discovery based learning are able to help teachers and students to be effective in teaching and learning. Students have opportunities to improve their knowledge as well promote research in their school. Secondly, guided discovery are significant than conventional strategy. Students showed different reading comprehension and lastly, discovery learning method needs to consider six stages stimulation, problem statement, data collection, data processing, verification, and generalization. However, as a teacher needs to consider carefully plan and guidance for students in learning reading.

Some Pertinent Ideas

Discovery learning method

Discovery learning model is one of methods in teaching and learning language to achieve the goal of teaching and learning and to solve the problems or difficulties in learning language. According to Nurdin et al (2017), the necessity of discovery learning is to solve the problems in our social life. He then argued that

students tend to explore what they have got in their real life. In this case, discovery learning consists of preparatory steps and implementation and therefore, discovery learning process can be concluded as the intellectual potential, the values of extrinsic to intrinsic, the long memories, and the heuristic learning.

The main targets of the discovery learning model are maximum student engagement in teaching and learning activities and develop self-belief about what is found during the learning process (Kusumawardhani et al., 2019 and Svinicki, 1998). Discovery learning takes place most notable in problem solving situations where the students draws in their experience and prior knowledge. This is supported by Mayer (2004) argued that discovery learning method is a teaching method to improve students to be more active in learning process by answering a series of questions or solving problems designed to introduce a general concept.

Therefore, discovery learning method is expected to bring a new atmosphere in learning that can increase the students achievement.

Strategies of discovery learning method

Bruner (1999; 2019) stated that there are number of practical suggestions that can be implemented to foster discovery learning. Since students become active learners in learning, the science teacher should be foster an atmosphere of curiosity. To develop discovery learning method, teachers need to consider several things; Firstly, assisting students to understand the structure of view information. The students are suggested to understand the structure of the information to be learned. Thus, teachers need to organize the information that could be structured by a set actions, symbols or logical statements. Secondly, design activities that are problem oriented. In this case, students need to be engaged in problem solving on a regular basis of they are to learn about the heuristic of discovery. Students need practice in problem solving or inquiry in order to understand discovery (Conway, 2007). Thirdly, intuitive thinking means implied grasping the meaning significance, or structure of a problem without specific that playfulness in learning was important. Students in a classroom whose teacher knows that it is acceptable to play with all sorts of combination extrapolation and guesses, including some science activities that encourage guessing and estimating will foster intuitive thinking (Bruner, 1961). Lastly, Problem solving in the context of inquiry engages students in problem that real and relevant to them (Bruner, 2019)

Reading Comprehension

Some researchers identified definition of reading (Matrix, 2005; Hoover & Gough; 1990; Snow, 2010). Reading is an exercise dominated by the eyes and the brain (Harmer, 1991). Additionally, reading comprehension is the process of simultaneously constructing and extracting meaning through interaction and engagement with print. The success of a comprehension event depends on a good match of reader skills, text difficulty, and task definition (Snow, 2010, p. 3). It seems that reader who read, it will receive messages and work out the significance of these messages. In other words, it is up to the reader to decide how fast he or she wants to read a text. For example, it is often difficult to convince students of English, as a foreign language that texts in English can be understood even though there are vocabulary items and structures the student has never seen before. The situation it is not only occur to non-native speakers, but also for some speakers of English as a first language (Harmer, 1991).

There some skills such as extracting specific information can be satisfactorily performed eventhough students do not understand the whole text. This is true for students who want to get the general idea of a text. It is necessary to train students in these skills since they may well have to comprehend reading in just such a situation in real life.

Issues in teaching reading

The Role of the Teacher. The huge numbers student in school has challenged teachers to pay closer attention to the need for more effective methodologies when teaching English, particularly in junior high school. The role of the teacher is deemed crucial. Teachers are an important element in any teaching situation. Further he argued that there are no good or bad methods, there are only good or bad teachers (Lunenberg et al., 2007 and Webb, 2009). However, others argued that there can be no right method for everyone (Freeman, 2000). Each method has strengths and weaknesses, and not all methods are suitable for all situations. Therefore, different methods are suitable for different teachers and learners in different context. The teacher's role in the selection of appropriate methods remains vitally important.

The importance of reading. In many parts of the world, reading has traditionally been the skill most emphasized in foreign language teaching and

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English as foreign language situations. In Indonesia, as in numerous countries other countries where English is a foreign language, university students are required to be able to read English language texts related to their field of study (Nurweni & Read, 1999, p. 7). In a survey of the holdings of the Hasanuddin University library, it was found that more than 80% of the books were written in English and in the English curriculum for teacher training faculties, it was found that 119 references were presented as English texts (Nurweni & Read, 1999, p. 8). This means that students need sound reading skills in order to be able to undertake their studies, using English texts, successfully (Nurweni & Read, 1999).

However, studies of the situation at school in Indonesia have shown that students have very limited vocabularies and this, in turn, limits their capability in reading. The present research shows that, upon entry to the university, students have still not reached the threshold level of 4000-5000 words that is widely regarded by scholars as the minimum vocabulary knowledge required to be able to read academic texts (Nurweni & Read, 1999). Therefore, teachers need to consider a range of skill development exercises aimed at improving students' vocabulary. The Institute of Technology Bandung (ITB), has undertaken the study skills initiative and has provided an interactive website for students to practice their reading by answering quizzes (Soedradjat & Jati, 2004). However, overall, it can be said that the ongoing problems associated with reading at school, are mainly due to students' limited knowledge of effective learning strategies, ineffective teaching approaches, the ever-changing curriculum and the insufficient number of teaching hours.

Research Design

This research will use pre-experimental method with one group in pre test and post test. The treatment will conduct after the pre test and before post test. The design is presented in the following:

Pre test	Treatment	Post test
X1	0	X2

Where: Pre test=X1 Treatment=0 Post-Test=X2

Variables

Independent variable

Independent variable of the research are the used of discovery learning method in teaching reading comprehension. Sustained discovery learning method is used by students to comprehend the information contained in reading materials.

Dependent variable

Dependent variable is increasing the students' reading comprehension. The indicators are (1) the indicator of literal reading comprehension are identifying specific information, sequencing events or ideas and following instructions. (2) the indicators of interpretative comprehension are implication, conclusion, generalization, and prediction.

Population and Sample

In this research, the population is the second grade students of SMP Negeri 01 Barru in academic year 2018/2019. Each class consists of 30 students. This research will apply total sampling technique. The researcher will choose one class as a sample.

Research Instruments

This research carried out by using reading comprehension test. The researcher will distribute multiple choice test which consists of 10 questions for each. The total question is 20 questions for two different topic reading passage.

Procedure of Collecting Data

In collecting data, the researcher will conduct several steps as follows;

Pre test : The researcher will observe the students' attitude and behaviour toward the pre test. This pre observation conducts in order to find out whether students find any difficulties or not.

Treatment : The researcher will explain discovery learning method is about 30 minutes before students practice reading material. The researcher will divide into small group and distribute them the different topic.

Post test : Post test will distribute to the students to know the students' reading comprehension as the result of treatment by discovery learning method.

Technique of Data Analysis

This research will use inferential statistic It is used to test hypothese and estimations of sample data. Steps are taken in quantitative analysis employing the following formula:

1. Scoring the students' answer pre test and post test
2. Scoring the students' reading comprehension

Table 1. Scoring of Students' Reading Comprehension

Classification	Score	Criteria
Excellent	9-10	No or one error of exercise
Very good	7-8	Two-three errors of exercise
Good	5-6	Four-five errors of exercise
Fair	3-4	Six-seven errors of exercise
Poor	1-2	Almost errors of exercise

3. Comparing the result of pre test and post test
4. Finding the significance between pre test and post test by calculating the value of the t-test.

RESULT

The result of data analysis showed from the reading comprehension test. The research process was conducted by using Discovery Learning Method to develop students' reading comprehension skill. The finding of the research to know the impact of using Discovery Learning Method and to find out the significance of Discovery Learning Method in learning English on particularly reading comprehension.

After analysing data, the result of reading comprehension in pre-test showed that 3 students were classified as very good, 13 students were classified as good, and 14 students were classified as fair. The finding of pre-test revealed that the classification of the students in pre-test experiment the total score was 200 and the mean score was 5. It shows that the students' mean score in reading comprehension was low before applying Discovery Learning Method and classified as good classification.

Meanwhile, the result of post-test showed that there are 4 students were classified as excellent, 18 students were classified as very good, 8 students were classified as good, and none of students classified as fair and poor. The finding showed that the classification of the students based on the post-test of experimental

class was 298 and the mean score was 7.45 and classified as very good classification. It seems that the students' reading comprehension improve after applying Discovery Learning Method at SMPN 01 Barru.

The result of finding examined the rate of percentage of the students' in pre-test. The finding showed that there were 3 (7.5%) students of 40 students got very good classification, 13 (32.5%) students of 40 students got good classification and 14 (60%) students of 40 students got fair classification. While none of students got excellent classification and poor classification. Consequently, it can be concluded that the students' reading comprehension in pre-test before implementing Discovery Learning Method was good classification.

This research also showed the percentage of the students' in post-test. It showed that 4 (10%) students of 40 students got excellent classification, 8 (20%) students of 40 students got very good classification and 28 (70%) students of 40 students got good classification. Meanwhile, none of the students got fair classification. However, after using Discovery Learning Method the score of students' in reading comprehension was increased significantly in the post-test. Therefore, it can be said that the students' reading comprehension at SMPN 01 Barru increase rapidly.

To know the students' mean score in pre-test and post test will be presented to table below:

Table 2. The students' mean score in pre-test and post-test

Pre-test (X1)	Post-test (X2)	Improvement
5	7.45	49 %

To find out the mean score of reading comprehension test, the researcher was calculated all score within pre-test $X=5$, and post test $X=7.45$. Meanwhile, the students' improvement score analysis for reading test was 49%. This means that there was an improvement of reading comprehension within Discovery Learning Method. In other words, Discovery Learning Method was success. It seems the advantages of Discovery learning Method for students have impact in the effective of teaching and learning process in English. Students have capability to enhance their vocabulary. It was proved from the student' reading comprehension test which have the improvement into the correct answer.

To know the significant between t-test and t-table for analysis in reading comprehension test showed $t = 24.75$ and it illustrates into the table below

Table 3. The t-test value of reading comprehension

t-test	t-table	comprehension	different
24.75	2.024	t-test	significant

The result of t-table value in reading comprehension test indicated that t-test value of reading comprehension were higher than t-table value ($24.74 \geq 2.024$), this finding used to determine the hypothesis that occurred in this research as it stated that null hypothesis (H0) is rejected when the value t- test was higher than the value of t-test, and alternative hypothesis (H1) was accepted. It means that the alternative hypothesis (H1) was accepted and the null hypothesis (H0) was rejected. The result of data analysis showed that the students have highly motivation to learn English by reading text and the students have self confidence to answer the question of reading. This result showed from the students' response in reading comprehension test.

DISCUSSION

It is believed that Discovery Learning Method is effective method in teaching and learning English at SMPN 01 Barru. The students are able to know the meaning of the words or vabularies that they read in reading text. This is supported by the frequency and the post-test of the students' score after implementing Discovery Learning Method was better than before appying to the students' treatment. Relating to the data collected in the pre-test and post-test, it showed that the students' reading comprehension of the first year of SMPN 01 Barru was good. Eventhough, students got problem in reading English text and answering the questions of reading passage but students have significantly increased their reading skill after learning reading within Discovery Learning Method as well as the students are able to read critically.

CONCLUSION

To sum up, the use of Discovery Learning Method in presenting the reading comprehension materials at the students of SMPN 01 Barru was improve of the students' achievement significantly. The findings indicates that the mean score of post-test was higher than in the pre-test. Additionally, the used of Discovery

Learning Method is able to enhance the students' literal reading comprehension at the students of SMPN 01 Barru. Furthermore, the used of Discovery Learning Method can develop the students' interpretive comprehension at the students of the first grade of SMPN 01 Barru. It is recommended for teachers to use Discovery Learning method in teaching English on reading comprehension particularly as well as presenting the reading comprehension materials for improving reading skill. Discovery learning method is suggested for the next researcher to explore about Discovery Learning Methods to exist the theories of Discovery Learning Method.

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