IMPROVING THE STUDENTS' KNOWLEDGE OF OPEN CLASSES THROUGH GROUP INVESTIGATION

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Abstract

This research aimed to find out the improvement of the students' knowledge in open classes which focused only on noun and adjective through group investigation. The research method used was a pre-experimental design with one group pretest and posttest design. The population was the eighth-year students of SMP Muhammadiyah 1 Makassar, the academic year 2009/2010 which consisted of 140 students and separated into four classes. The sample was taken by purposive sampling technique and the total number of samples was 30 students. The instrument used for measuring the students' improvement scores in the form of percentages was a written test. The data were gathered after scoring the students' ability in open word class, especially for nouns and adjectives, tabulated in percentage, and analyzed using a t-test to prove the significance of the hypothesis ($p=0,05$, $df=29$). The findings of the research were (1) the students' improvement in noun test was 41 % with t-test 13.43 and t-table 2.045 (13.43 > 2.045), it was significant because the t-test was higher than the t-table; (2) the students' improvement in the adjective test was 80 % with t-test 11.4 and t-table 2.045 (11.4>2.045), it was significant because t-test was higher than t-table, and the improvement on both noun and adjective altogether was 50 % with t-test 16.43 and t-table 2.045 (16.43 > 2.045).

Keywords: open classes, students' knowledge, group investigation

Abstrak

Penelitian ini bertujuan untuk mengetahui peningkatan pengetahuan siswa di kelas terbuka yang hanya berfokus pada kata benda dan kata sifat melalui investigasi kelompok. Metode penelitian yang digunakan adalah pre-experimental design dengan one group pretest and posttest design. Populasi dalam penelitian ini adalah siswa kelas VIII SMP Muhammadiyah 1 Makassar tahun ajaran 2009/2010 yang berjumlah 140 siswa dan dibagi menjadi empat kelas. Pengambilan sampel dilakukan dengan teknik purposive sampling dan jumlah sampel sebanyak 30 siswa. Instrumen yang digunakan untuk mengukur peningkatan skor siswa dalam bentuk persentase adalah tes tertulis. Data dikumpulkan setelah menilai kemampuan siswa dalam kelas kata terbuka, terutama untuk kata benda dan kata sifat, ditabulasikan dalam persentase, dan dianalisis menggunakan uji-t untuk membuktikan signifikansi hipotesis ($p=0,05$, $df=29$) . Hasil penelitian ini adalah (1) peningkatan siswa dalam uji kata benda sebesar 41% dengan t-test 13,43 dan t-tabel 2,045 (13,43 > 2,045), signifikan karena t-test lebih tinggi dari t-tabel ; (2) peningkatan siswa dalam tes kata sifat adalah 80% dengan t-test 11,4 dan t-tabel 2,045 (11,4>2,045), signifikan karena t-test lebih tinggi dari t-tabel, dan peningkatan pada kedua kata benda dan kata sifat secara keseluruhan adalah 50% dengan t-test 16,43 dan t-tabel 2,045 (16,43 > 2,045).

Kata Kunci: kelas terbuka, pengetahuan siswa, investigasi kelompok

INTRODUCTION

Teaching English is something that is not so easy to do. English has different letters and their sounds. It also has many rules in its grammar. English has four skills; listening, speaking, reading, and writing. Each skill has its own rules. English grammar is still becoming the most difficult aspect of learning this language. Most students tended to be confused about using tense and choosing appropriate verbs when they wanted to make a sentence in English (Ameliani, 2019:6). Furthermore, lack of many vocabularies and grammatical errors are the main difficulties which were faced by the students. (Arono, et al, 2019:92). It indicates that there must be something done by the teachers to overcome these problems.

However, sometimes the teachers neglect the students' condition and the methods they apply in their teaching, so it is not surprising that the student's achievement in this language is still low compared to the national achievement standard. As this is so, in teaching English, a teacher must do something that makes the students feel comfortable and enjoyable during the learning process. A teacher should offer the students interesting and authentic materials. Not only teaching but also a teacher should use appropriate methods in teaching to make the students enjoy their class as well as to improve the students' achievement.

A method is one thing that can make the teaching and learning process more interesting. The method is a teacher's way of transferring knowledge to students in the process of learning. (Ariandika, et al, 2018:277). Method refers to a body of techniques for investigating phenomena, acquiring new knowledge, or correcting and integrating new knowledge. By using the appropriate method, a teacher can help the students in acquiring and integrating new knowledge. Relating to this phenomenon, the cooperative learning method is believed can overcome this problem.

Cooperative learning is one method that can be used in teaching English. This is such a group activity that offer opportunities for the teachers to develop a sense of community ethos. Ayuwanti (2016: 107) emphasize that knowledge cannot be directly transferred from the teacher to students, which means the students need to be mentally active building their knowledge structure based on their cognitive maturity. Cooperative learning or usually called CL is defined as an instructional method that gained the students to help each other in learning academic content, this method is focusing on students center approach. (Slavin in Attamimi, 2014:20). That sense of belonging, working together, taking risks, and encouraging each other become additional instructional strategies that teachers strive to facilitate in school classrooms (Moberly, 2003:3). Effective learning takes place when the person is active in the learning period. Instead of the traditional teaching method in which the teacher is active, cooperative learning activities help student shape their learning period with the help of their participation. (Yavuz, et al, 2018: 592). Not only increase the students' motivation, but cooperative learning also increases self-confidence, improves communication skills, and increases active participation in the education process. (Ying Chu, 2014:171)

Cooperative learning consists of many models of teaching, such as STAD (Student Team Achievement Division), Jigsaw, Think-Pair-Share (TPS), Number-head Together, Round Table, Group Investigation (GI), and so forth. (Robert. E. Slavin: 1983:5). All models have their strengths and weakness. It is the teacher's chance to select which model the teacher understands well and can be applied in their teaching, and how the model can give a contribution to the students learning.

Group investigation is one the model of cooperative learning that can be regarded as a learning model of active students that can

make meaningful learning positively related to students learning achievement because the principles of this group investigation include student-centered, learning by doing, developing social skills, develop curiosity, imagination, develop problem-solving skills, develop students' creativity, develop the ability to use science and technology, cooperation and solidarity. (Sangadji, 2016:96). Applying Group Investigation (GI) in teaching has several advantages, namely, it can develop the students' thinking skills in learning the material independently, it also can improve the students' cognitive aspects and the students learning outcomes, it can develop the students' ability to actively cooperate in group and reveal opinion in group discussion, as well as students, can have skills to interact and communicate well in the group. (Purnamasari, et al, 2018: 133). Slavin in Astra (2015: 75) explained that in Group Investigation students should plan, solve and report. Students participate in problems or project discussions with their friends and teachers. Students can also gain some experience in giving or receiving arguments. Those activities let the students learn a topic intensively and extensively, which are expected to make the students understand.

Based on the background, the research question formulated to meet the research objective in this study is "To what extent can Group Investigation (GI) Method improve the students' knowledge in learning open classes?". Therefore, the purpose of this research was to find out whether the cooperative learning model Group Investigation (GI) can improve students' knowledge of open classes.

RESEARCH METHOD

The research study used a pre-experimental method with the instrument that was students' results of pre-test and post-test. The subject of this study was the 10th-grade students of SMA Muhammadiyah 1 Unismuh Makassar in the 2019-2020

academic years selected purposively. In addition, according to Cohen (1980:2), quantitative research is defined as social research that employs empirical methods and empirical statements. He states that an empirical statement is defined as a descriptive statement about what "is" the case in the "real world" rather than what "ought" to be the case. Furthermore, Sugiyono (2017:7) explained that quantitative research is a research method based on the philosophy of positivism because it has applied scientific principles in a concrete or empirical, objective, rational, and systematic manner. Then, to be the scope of this study, the researchers limited the students' knowledge in the open classes only to nouns and adjectives. The subjects of this research were given treatment in six steps. The first is identifying the topic to be investigated and organizing students into research groups, the second is planning the investigation in a group, the third is carrying out the investigation, the fourth is preparing the final report, and the fifth is presenting the final report and the sixth is evaluation. (Sharan in Ayuwanti, 2016: 108). The subjects of this research were given a pre-test at the first meeting, a treatment at the second until the fifth meeting, and a post-test in the sixth meeting to know the students' improvement after applying the group investigation technique. The data were collected through the pre-test and post-test, then analyzed using statistical measures namely mean and t-Test to know the effects of using cooperative learning model group investigation in teaching nouns and adjectives at SMA Muhammadiyah 1 Unismuh Makassar.

FINDINGS

The researchers analyzed the data from thirty students who were given a pre-test, then compared it with their scores in the post-test. The result of the data analysis can be illustrated in the following tables:

Table 1 :
The students' knowledge in open word classes
based on the improvement percentage of nouns and adjectives.

o	Variable	Pre- test X1	Post-test X2	Improvement
	Noun : a. Proper noun b. Countable noun c. Uncountable noun	6.2 4.6 3.1	7.3 7.1 5.2	17 % 54 % 60%
	Adjective(descriptive adjective)	4.2	7.6	80%

The students' knowledge of nouns was separated into three categories, proper nouns, countable nouns, and uncountable nouns. In the pre-test, the students' knowledge of proper nouns got a score of 6.2 which was classified as *"fair"* but in the post-test, the students' score moved to 7.3 which was classified as *"fairly good"*. This means that there was a score increase of 1.1, with an improvement percentage of 17 %.

The students' knowledge of countable nouns improved from 4.6 which was classified as *"poor"* in the pretest to 7.1 which was classified as *"fairly good"* in the post-test. It indicates that the student's knowledge was improved by 2.5 points with an improvement percentage of 54%. The students' knowledge of uncountable nouns improved from 3.1 in the pre-test which was classified as *"very poor" t*o 5.2 in the post-test which was classified as *"poor"* the improvement percentage was 60 %. The increase was 2.1 points.

The students' knowledge of adjectives improved from 4.2 which was classified as *"poor"* in the pre-test to 7.6 which was classified as *"good"* in the post-test. It indicates that the student's knowledge was improved by 3.4 points with an improvement percentage was 80 %.

This movement indicates that the Group Investigation method could successfully improve the students' knowledge of nouns and Adjectives as elements of Open Classes.

The above improvement can also be shown by the following graphic:

Graphic 1.
The students' knowledge in open classes based on the percentage of nouns and adjectives.
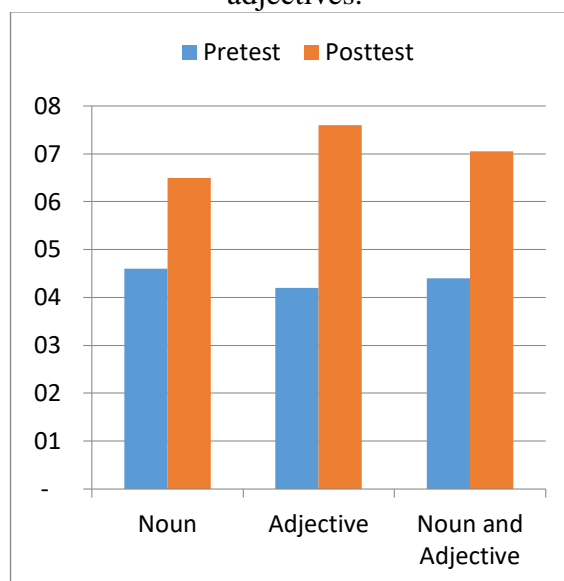
The graphic above shows the students' ability to classify nouns and use correct adjectives performed by the students of VIIIC in SMP Muhammadiyah 1 Makassar. This graphic present the students' score in the pre-test and post-test which focused on nouns and adjectives as the elements in open word classes. From the graphic, it is known that there is a significant increase in the mean score in the post-test compared to that in the pretest. The highest increase happens to the adjective mean score, the increase reaches 3.4 points, while the others only reach 1.9 points (noun only) and 2.65 points (noun and adjective). This means the Group

Investigation method could practically improve the students' knowledge of Noun and Adjective as elements of Open Classes.

To know the impact of the Group Investigation on the students' knowledge of Open Classes (Noun and Adjective), the table below might be helpful:

Table 2.
The students' knowledge improvement viewed
from the score classification
improvement

Kinds	Score Classification						
Of Tests	xc	G		G			P
Pretest						6	
%				3	3	3	
Post Test					3		0
%			0	7	3		

Notes:
Exc = Excellent   F = Fair
VG = Very Good   P = Poor
G   = Good
    VP = Very Poor
FG = Fairly Good

The table above shows that GI could successfully improve student learning as it could decrease the number of students' scores "Poor" which in the pretest there were 16 students (53 %) but in the post-test, this number decreased to 2 students (6 %). This table also shows that GI could move the number of students' scores "Fair" and "Fairly Good" from 7 students (23 %) to 13 students (43 %) and 8 students (27 %) each, and also could enhance the students to gain "Good" and "Very Good" score classification up to 7 students (23 %).

Based on these findings, it was shown that the treatment (Group Investigation Method) could successfully improve the students' knowledge of Open Classes (Noun and Adjective).

To find out whether or not the mean score difference was significant in term statistics, the t-test result was presented below:

Table 3. Statistic T-testing Operation

Open Classes	t-test	t-table
Nouns	13, 42	
Adjectives	11, 43	2.0 45
Noun and Adjective	16. 43	

After calculating the t-test value, then it is compared with the value of the t-table with the level of significance $p=0.05$ with the degree of freedom (df = 29), the value of the t-test value is greater than the t-table value. The t-test value for a noun is 13.42, the t-test for an adjective is 11,43, and the t-test value for both noun and adjective is 16.43. This shows that the mean score difference between pretest and post-test is statistically significant.

These findings are used to determine whether or not the hypothesis stated in this research is statistically proved. As stated in the previous chapter that the null hypothesis (H_0) is rejected when the value of the t-test is greater than the value of the t-table and the alternative hypothesis (H_1) is accepted. Therefore, based on the above result where the value of the t-test is greater than the value of the t-table, the alternative hypothesis (H_1) is accepted and the null hypothesis (H_0) is rejected. This means that the hypothesis *"There is a significant difference in the students' knowledge on open classes before and after teaching through Group Investigation"* is accepted ($p = .05$. df = 29). And this also means that Group Investigation Method could significantly improve the students'

knowledge of Nouns and Adjectives as the elements of Open Classes.

DISCUSSION

The research finding indicates that the student's knowledge of open word classes increases by using the group investigation method. The description of the result of the noun and adjective test showed the improvement of the students' knowledge of open classes' through the group investigation method.

Table 1 which presented the students' mean scores on nouns and adjectives showed that the higher improvement was on adjectives, uncountable nouns, and countable nouns. The students' knowledge of adjectives was good because they had learned a few about adjectives in the first year. That's why the higher improvement was on the adjective (80%), compared to uncountable nouns and countable nouns, the improvements were 60% and 54%. This indicated that the student's prior knowledge of uncountable and countable nouns was still lower than the adjective. But, after applying the Group Investigation method in the treatment the students could understand and classify between uncountable nouns and countable nouns.

This finding was not surprising as all steps in the Group Investigation Method had successfully been conducted. From the beginning of the treatment, the students were involved to determine what topics they wanted to investigate. This happened until the end of the treatment. All students took active participation in doing all the given tasks.

The way the students interacted during treatment was also one thing that supported the success of GI. The process of decision-making in solving the problems was done through mutual interaction. All the group members contributed their opinions and then accepted the group decision. In that way, the students felt quite admitted to their existence.

Besides involvement, motivation, and interaction, the learning atmosphere was also one factor that supported the success of GI. During the treatment, the students were given the freedom to move from one desk to another desk, and even to leave the classroom for example to go to the school library to search for information. The researchers were there just to facilitate and help the students who needed supervision.

CONCLUSION

Based on the results of the data analysis and discussion, it can be concluded as follows :

1. The group Investigation method can successfully improve the students' knowledge of nouns and Adjectives as elements of Open Classes.

2. The group Investigation method can become one alternative method to be used in English Language Teaching classrooms.

3. To increase the students learning achievement, the student's involvement, motivation, and interaction should be enhanced quite well as well as the learning atmosphere.

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