THE EFFICACY OF WORD TRANSLATION GAME IN INCREASING VOCABULARY OF CIVIL ENGINEERING TECHNICAL TERMS

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Abstract

This research is aimed at finding out the using of word translation game in increasing vocabulary of Civil Engineering technical terms. It is conducted at the third semester of Civil Engineering students' department, study program Diploma 3 Building Construction Engineering Study Program of State Polytechnic of Ujung Pandang (PNUP Makassar). In this study, the researchers used the Classroom Action Research (CAR) method. The CAR procedure used in this research is Kurt Lewin's design. It consists of two cycles in which each cycle contains four phases; planning, acting, observing, and reflecting. There were 20 students which were taken randomly from 2 classes A and B. The technique of collecting data in this research used qualitative data (experience-based) and quantitative data (number-based). The result of the research showed that for the first cycle after the students were given the materials of the Civil Engineering technical terms for 4 meetings, the result of the test was getting improved to mean score as 68,5. There were 13 students got the KKM score equal or above 75. For the post test, there were only two students got the score under 75. The mean score was 77,5. This was meant that word translation game could affect the increasing of students ability in mastering the meaning of vocabulary of the civil engineering technical terms.

Keywords: word, translation, game, technical, term

Abstrak

Penelitian ini bertujuan untuk mengetahui efektivitas penggunaan game translation di dalam kelas untuk meningkatkan penguasaan kosa kata istilah-istilah yang digunakan dalam bidang ilmu teknik sipil. Penelitian ini dilakukan pada mata kuliah Bahasa Inggris Teknik untuk mahasiswa semester tiga di program studi Teknik Konstruksi Gedung Jurusan Teknik Sipil Politeknik Negeri Ujung Pandang. Penelitian ini menggunakan metode CAR (penelitian tindakan kelas) yang diadaptasi dari desain yang dikembangkan oleh Kurt Lewin. Penelitian ini terdiri atas 2 siklus dimana setiap siklus mempunyai 4 tahapan yaitu perencanaan, observasi, tindakan, dan refleksi. Ada 20 orang mahasiswa yang diambil secara acak dan dijadikan sebagai objek penelitian. Teknik pengumpulan dan pengolahan data menggunakan metode kualitatif dan kuantitatif. Hasil penelitian menunjukkan untuk siklus pertama setelah mahasiswa diberikan materi istilah-istilah teknin sipil selama 4 pertemuan, hasil tes menujukkan peningkatan nilai rata-rata sebesar 68,5. Terdapat 13 mahasiswa yang masih meniliki nilai dibawah rata-rata atau setara dengan nilai KKM 75. Untuk hasil post-test hanya ada 2 yang mendapatkan nilai dibawah nilai 75. Nilai rata-rata sebesar 77,5. Hal ini menunjukkan permainan terjemahan memberikan dampak meningkatnya kemampuan mahasiswa dalam menguasai makna kosakata untuk istilah-istilah yang digunakan dalam pembelajaran mata kuliah bahasa Inggris teknik.

Kata Kunci: kata, terjemahan, permainan, istilah, teknik.

INTRODUCTION

In teaching the subject of technical English the researcher had bad enough experience concerning the lack of civil engineering vocabulary terms of the students. Most of the students at the Building Construction Class A and B Civil Engineering Department, it is found that most students assumed that they lack of vocabulary of Civil Engineering technical terms. In line with that to overcome the problems, as the teachers are responsible

to have a good method for educating the students to get the sufficient English learning environment in the classroom which grammatically correct especially for teaching the translation of technical terms to bahasa. Doing one of the methods explained above learning English by using word translation game is assumed can increase the students' vocabulary learning in the classroom

METHODOLOGY

Research Method

In this research, the researchers used the Classroom Action Research (CAR) method. CAR is carried out as a tool to diagnose problems in learning activity in the class, and as the way to improve students' performance in the classroom. Related to this research, the implementation of CAR is conducted by finding the real problems faced in the classroom related with students' condition in learning.

Population and Sample

In this research, the researchers use 20 out of the 40 students of the second semester of Service Construction Management of Civil Engineering Study program of Politeknik Negeri Ujung Pandang academic year 2020/2021 as the sample of the research. In this research, the researchers use the technique of random sampling.

Research Design

The CAR procedure used in this research is Kurt Lewin's design. It consists of two cycles in which each cycle contains four phases; planning, acting, observing, and reflecting.

FINDINGS AND DISCUSSIONS

Pre-Cycle Description

In this research, the researchers used two cycles. Before conducting the action, the writers used giving speech and asking questions and answers method to the students. The results of the study were not satisfying, especially for units of Materials and Properties and Concrete. The research focused on two units of Questions of translating the civil

engineering terms. Pre-Test was given in the type of giving question and direct answer in the form of translation the terms.

The result of the pre-test showed that the students' mean score for the unit of Civil Engineering technical terms is 35.8. The highest score is on 63.33 and the lowest is on 23.33. The Pre-Test was conducted to get the level of difficulties of the technical terms of Civil Engineering to the students of Second Semester.

Research Procedure

Cycle 1

a. Planning

Before conducting the research, the researchers are planning some activities such as forming the lesson planning which would be used in learning process at the classroom. The topic design of the learning material, which was designed by the researchers, as follows: technical terms of kinds of bridges, waterways and roads.

b. Action and Observation

After designing the action, the next step was to conduct the action and observe every behavior of the research subjects while conducting the learning activity by using method translation game. The steps of the learning activities were divided into three sessions: introduction, core, and closing activities.

- Meeting 1

  Meeting 1 which was held on May 1, 2023, the researchers explained about the materials of types of bridge. The result of the test has been shown above in table 1.

- Meeting 2

  Meeting 2 was the core activity in the classroom. The result of the cycle 1 shown in table 2 below:

Table 2
Result of Cycle 1

Student	Total of Correct Answer	Score
1	16	70
2	10	50
3	10	50
4	15	75

5	16	75
6	17	80
7	15	75
8	17	70
9	15	75
10	16	80
11	17	85
12	12	50
13	17	80
14	13	65
15	10	50
16	14	70
17	15	75
18	10	50
19	15	75
20	14	70
	Total	1370

Based on the above table of students' results, the mean score can be found for the cycle 1 by using the formula below:

$$X = \frac{\text{Total score of the students}}{\text{Total students}} \times 100\%$$

$$X = \frac{1370}{20} \times 100\%$$

$$= 68.5$$

After having the game in cycle 1, as can be seen from the table 2 that there are 13 students got the score above or equal 70. The mean score is 68,5. The score was given based on these criteria as follows:

Grade	Poin	Score
A	4,0	80 - 100
B+	3,5	75 - 79
B	3,0	70 - 74
C+	2,5	65 - 69
C	2,0	60 - 64
D	1	50 - 59
E	0	0 - 49

Based on the average score achieved by the students, the score 68.5 was not categorized as good score. Therefore, this research needs to be continued in the next cycle.

c. Reflection

There were 13 students who got score fulfilled the KKM or the minimum passing criteria. Based on the first cycle, the researchers were sufficiently satisfied with their efforts to increase the vocabulary of the students, despite the fact that not all of the goals could yet be fulfilled.

Cycle 2

a. Planning

The next research was on the 5th meeting. The topic design of the learning material for the 5th and 6th meeting was Concrete. There were several technical terms which were discussed with the students such as cement based, coarse and fine aggregate, structural strength and many more.

b. Action and Observation

The next step after designing the action was to conduct the action and observe every behavior of the research subjects while conducting the learning activity by using method translation game. The steps of the learning activities were divided into three sessions: introduction, core, and closing activities.

- Meeting 5

  The explanation was about job mix design; the proportion of cement, fine aggregate, coarse aggregate to be used for specific structures. It was also explained about the reinforced concrete which could be used in specific structure.

- Meeting 6

  Meeting 6 was the core activity in the classroom. It was held on 23 May 2023. The learning process was started by giving questions about the previous materials on the last week. Next step, the researchers began to prepare for conducting the method of word translation game. After playing the word translation game the researchers gave the students post-test about all the materials given. The result of the cycle 2 post test shown in table 3 below:

Table 3
The Result of Cycle 2

Student	Total of Correct Answer	Score
1	18	90
2	14	70

3	18	90
4	16	80
5	14	70
6	15	75
7	16	80
8	13	65
9	17	85
10	15	75
11	18	90
12	16	80
13	18	90
14	14	70
15	17	85
16	19	95
17	18	90
18	18	90
19	16	80
20	17	85
Total		

Based on the above table of students' results, the mean score can be found for the cycle 1 by using the formula below:

$X = \dfrac{\text{Total score of the students}}{\text{Total students}} \times 100\%$

$X = \dfrac{1555}{20} \times 100\%$

$= 77{,}75$

The result showed that there were only 2 students did not pass the criteria of KKM, with the score 65 and 70. The rest of the students passed the KKM above or equal 75 score. Considering the outcome of Post Test 2, the average class score was 77.75. Based on the average score achieved by the students, the score 77.5 was categorized as good performance, therefore this research was discontinued by the researchers.

c. Reflection

After seeing the results of the vocabulary exam, the researchers were happy with how well their plan to use games to help the students learn vocabulary of Civil Engineering technical terms had worked. In determining the meaning of words, almost every student

answered the terms correctly. The result of the post test was satisfactory, and the indicators met the success requirements, therefore the researchers agreed to discontinue the actions.

CONCLUSION & SUGGESTIONS

Conclusion

Based on the findings of this research, it can be concluded that students' vocabulary achievements in translating the civil engineering technical terms improved by using word translation game. These can be seen from:

First, related to the test result in pre-test, the mean score was 35.8. The highest score was on 63.33 and the lowest was on 23.33. Almost all students could not give the correct answer in pre-test. For the first cycle after the students were given the materials of the Civil Engineering technical terms for 4 meetings, the result of the test was getting improved to the mean score as 68.5. There were 13 students got the KKM score equal or above 75. For the post test, there were only two students got the score under 75. The mean score was 77.5. This was meant that word translation game could affect the increasing of students ability in mastering the meaning of vocabulary of the civil engineering technical terms. Second, the observation result indicated that the students were more engaged, interested, and participated actively in the game. Word translation game could be seen as one method that can improve the students in learning new vocabularies because in playing the game the students were having fun, happy, enjoy, and enthusiastically answered the questions.

Suggestions

Based on the above conclusions, the researcher proposes the following suggestions as follows:

In considering the still inadequate proficiency of students in learning the civil engineering technical terms, students should improve their mastery of the vocabulary such as the terms of bridges, properties, materials, roads, and canals. This will deepen their understanding, making it easier for students to find the correct answers when answering the questions of the game. Next, the lecturer must ensure that students are engaged in every learning activity in class, more diverse teaching techniques must be

used in the classroom. For the further research in word translation game it is hoped to investigate the spelling, diction, and using the word in a simple sentence.

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