Quartet Cards Game as a Media Used to Promote Students' Vocabulary Mastery

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Abstract

This research had the objective of measuring whether or not Quartet cards game used as attractive media effective to promote 7th grade students' vocabulary mastery. This quantitative research applied experimental approach with one group pre-test and post-test design. There were 28 students of 7th grade, registered in even semester of academic year 2022/2023, participated as sample in this study. The tools used in collecting the data were validated pre-test and post-test of vocabulary knowledge. In analyzing the data, paired-sample test was used to determine the correlations between variables and to decide which hypothesis was accepted. Initial data calculation revealed that in the average, the students reached higher achievement in the post test than in the pre-test in which the mean score gained in the post-test was 77.71 while in the pre-test was 55.96 which meant that vocabulary mastery of the students was 21.95 points increased after they were taught by using Quartet cards game. Besides, the statistical analysis indicated that the correlation coefficient between two variables was 0.678 with the sig value of 0.001 or < than a probability of 0.05, this confirmed that there was a relationship between pre-test and post-test variables. The computation of paired-sample test revealed that Sig. (one-sided and two-sided p) was <0.001 which showed that there was different achievement reached by the students after Quartet cards game was used in the learning. Based on these findings, this research concluded that Quartet cards game promoted 7th graders' vocabulary mastery. Thus, this study accepted Ha and rejected H_0.

Keywords: teaching aids, learning media, quartet cards game, vocabulary mastery

Abstrak

Penelitian ini memiliki tujuan untuk mengukur apakah Quartet cards game yang digunakan sebagai media yang atraktif efektif dalam meningkatkan penguasaan kosakata siswa kelas 7. Penelitian kuantitatif ini menerapkan pendekatan eksperimen dengan disain 'one group pre-test post-test'. Sejumlah 28 siswa kelas 7 MTs Darussalam, Tangerang Selatan, terdaftar pada semester genap tahun ajaran 2022/2023, berpartisipasi sebagai sampel dalam penelitian ini. Alat yang digunakan dalam mengumpulkan data adalah uji pengetahuan kosa kata sebelum dan sesudah (pre-test dan post-test) yang telah divalidasi. Dalam menganalisis data, paired sample test digunakan untuk menentukan korelasi antar variabel dan untuk menentukan hipotesis mana yang diterima. Kalkulasi data diawal menunjukkan bahwa secara rerata, siswa mencapai hasil yang lebih tinggi pada post-test dibandingkan capaian mereka di pre-test, dimana nilai rerata di post-test adalah 77.71 sedangkan pada pre-test adalah 55.96 dimana hal ini menunjukkan bahwa penguasaan kosa kata siswa meningkat sebesar 21.95 poin setelah mereka diajarkan dengan menggunakan media Quartet cards game. Selain itu, analisis statistika menunjukkan korelasi koefisien antar variabel adalah 0.678 dengan nilai signifikan 0.001 atau lebih kecil (<) dari kemungkinan 0.05, dan hal ini mengkonfirmasi bahwa terdapat korelasi antara variabel pre-test dan post-test. Perhitungan dari paired-sample test menunjukkan bahwa Signifikan (one-sided dab two-sided p) lebih kecil dari 0.001 (<0.001) yang menunjukkan bahwa terdapat perbedaan capaian yang diraih oleh siswa setelah Quartet cards game digunakan dalam pembelajaran. Berdasarkan temuan ini maka disimpulkan bahwa Quartet cards game meningkatkan penguasaan kosa kata siswa kelas 7. Dengan demikian, ma.ka penelitian ini menerima Ha dan menolak H0.

Kata Kunci: *alat bantu ajar, media pembelajaran, quartet cards game, penguasaan kosa kata*

1. Introduction

In English learning, vocabulary is the seed to strengthen the other skills (Qureshi, 2023). "It is a central to language teaching and is paramount importance to language learners" (Alqahtani, 2015, p. 21). Dakhi and Fitria (2019) said that vocabulary is the main instrument in communication. In line with this idea, Simanjuntak (2020) opined that in English learning, the learners will get barriers to understand text and converse if they do not master sufficient vocabulary. Thus, "students' vocabulary achievement becomes a major factor in studying English" (Zaitun, et.al., 2021, p. 148).

According to Ezeh, et.al. (2022), one of the factors which affects the success of English teaching and learning is media aids. This opinion was also supported by Budiman, et.al. (2018) who claimed that having no teaching media in the process of teaching would make the students face problems to understand the materials taught, the quality of teaching would be low and learning achievement cannot be achieved by the students. In teaching vocabulary, the utilization of visual aids will reinforce students' engagement, understanding and learning outcomes.

There are various numbers of teaching media and one of them is Quartet cards game. Zirawaga, et.al. (2017) opined that inserting game in education might interfere the learning, however, gaming has pivotal roles in increasing students' engagement and motivation, enhancing visual skills, improving students' interaction and collaborative learning atmosphere. In English education, Wright's (2017) said that games represent additional strategy employed by the teachers. Gozcu and Caganaga (2016) added that games are one of the most pivotal aspects in EFL classrooms in which the activities comprise rules, goals, and also fun. Playing under certain rules and goals will manage the students to have a fair-play to fulfill the requirement demanded by the games. Therefore, the activities will certainly change the atmosphere of the class since the students tend to be more encouraging and joyful if they have to compete to each other in a positive way. As StojkoviҐ and JerotijeviҐ (2011) previously found that in EFL classrooms, games were successful activities to make the students communicate, interact, do learning effort and create meaningful context to use the language, lower anxiety, generate fluency, introduce relaxation and fun.

In terms of vocabulary learning, Tuan (2012) argued that games have been proven to have merits and effectiveness in many ways; first, in enhancing students' vocabulary acquisition, second, in motivating the students to learn new words faster and better since games are interesting and amusing, third, in providing students meaningful practice of language intensively. Besides, Misa (2022) also said that using games in teaching vocabulary give positive impacts to teachers' and high school students' roles in which the students will be motivated and easier to learn and deepen their English so that the teachers will be assisted in the process of their teaching.

There are various types of English games that can be used as teaching and learning media in vocabulary class and one of them is Quartet cards game. Warni (2019) said that one of the advantages of Quartet cards game is enriching students' vocabulary. Students will be stimulated to memorize the words under the topic discussed by observing the picture on cards, hence, their bank of words will be developed. Phung (2021) argued that in presenting vocabulary, pictures are very useful instruments. Besides, Quy (2019, p. 14) claimed that: "a sense of trust and responsibility is promoted when students are in collaboration toward their team's goal". This statement explains that in Quartet game, students do not only enjoy the collaboration when playing the game, even more, they also have the motivation to put their best efforts to reach the goals of their teams. Quartets involve two to six persons as players in order to win all the sets of four. The cards are mixed and distributed to every player equally. Each player just holds the cards without showing their hand to other player's. The game starts by letting one player asking a certain number of a card to the other player (for example, card 4A) to create a quartet. If the player has that card, he/she should hand it over, and if he/she does not have one then it his/her turns to ask. In a two-player game, the player will draw card from the deck if he/she does not have the requested card. When a

quartet is accomplished, the cards are placed in front of the player. The winner of this game is the one who collects the most quartets. (Crook, 2023).

Annisa and Rohani (2015) in their prior study found that the use of Quartet cards game in teaching and learning vocabulary was needed especially for junior high school students since the cards contain colorful and interesting pictures which encouraged and motivated the students to have fun learning. Besides this research, some previous studies also utilized Quartet cards game in EFL classrooms and proved its effectiveness in various purposes and skills including Permatasari, et.al. (2023); Elviza and Ratmanida (2019); Santoso (2019) who investigated Quartet cards game in teaching speaking skill, Ayriza, et.al. (2021) who researched Quartet cards game in increasing students' career knowledge, and Astuti, et.al. (2021) who used this game in teaching descriptive texts writing. From these several studies, the use of Quartet cards game in vocabulary learning was still limited. Besides, this research was also different from the one studied by Annisa and Rohani (2015) aforementioned above since the researchers measured the effectiveness of Quartet cards game to increase students' vocabulary mastery by conducting experimental study, while Annisa and Rohani examined this media through assessment from teachers and students, also trial and error to determine whether or not Quartet cards game could be recommended as effective media in vocabulary class. Therefore, this research work aimed to fill this gap by investigating the use of Quartet cards game in promoting students' vocabulary mastery. Thus, this research was guided by a question: "Does Quartet cards game promote students' vocabulary mastery?" The researchers believed that the results of this study would give beneficial insights to English teachers particularly to utilize an interesting media in their vocabulary teaching, hence vocabulary mastery of the students would be increased.
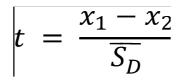
2. Method

In this study, the researchers employed quantitative method with pre-experimental approach of one group pre-test and post-test design. According to Creswell (2014), quantitative research is used when the objective theories tested and the relationship among variables examined. These variables are measured through the instruments in the form of numbers so that statistical analysis is used. Meanwhile, Stratton (2019) explained that in a pre-test and post-test research design, a directionality can be said as an advantage where a dependent variable is tested before and after the intervention of independent variable. The different results between those two phases are presumed as the results of the treatment.

This research only involved one class of 7th graders of MTs Darussalam, South Tangerang to be taught vocabulary by using Quartet cards game. These students were registered in even semester, in the academic year of 2022/2023. Since there was only one class of 7th graders at this school, total population sampling technique was applied. In order to measure the relationship between variable X (Quartet card game) and variable Y (students' vocabulary mastery), both pre-test and post-tests were used as the instruments to collect the data.

After the pre-test was given, the researchers did their treatment for 6 meetings to teach the students English words by using the media of Quartet cards game. Since this game should be played by more than three persons, the researchers split the students into several small groups to invite them learning how to master vocabulary by gaming that Quartet cards. In preparing this media, the researchers made their own cards from white thick paper and then put pictures on them. The pictures were taken from the internet and adjusted by the subject the students had learnt, hence they were quite familiar with the pictures. After the six meetings were accomplished, post-test was given to the students in order to measure their vocabulary mastery after being taught by using Quartet cards game.

In analyzing the data, the researchers firstly calculated each of the student's score in those two tests. After that, the average score gained by the students in the pretest was compared to the

one they reached in the post-test. In order to determine whether or not there was different achievement the students achieved in those two tests, and to confirm if the difference affected by the use of Quartet cards game media, statistical analysis of paired-sample test was used. The formula used was as follows:

$$t = \frac{x_1 - x_2}{\overline{S_D}}$$

The was also guided by two hypotheses proposed by the researchers, namely: Ha = Quartet cards game promotes students'

3. Results and Discussion

Until the experiment finished, there were only 28 students out of 30 who participated fully in this research. Therefore, the analyzed data were taken from those 28 students. After calculating each student's vocabulary pre-test and post-test results and counting the total and average scores gained by the students in those two tests, the researchers summarized the data presented in the following Table 1:

Table 1. Students' vocabulary achievement in the pre-test and post-test

The score	Pre-test	Post-test
Total score	1567	2176
The highest score	88	96
The lowest score	52	72
Average score	55.96	77.71

It was clearly seen that the students achieved higher score in the post-test, in which in the average, they reached 77.71 or 21.95 points higher than the average score in the pre-test (55.96). In terms of the highest and lowest score hit by the students in those two tests, the students also performed better in the post-test in which the highest score was 96 (while in the pre-test was 88), and the lowest score was 72 (while in the pre-test was 52). At this stage, saying that Quartet card game was effective in promoting students' vocabulary mastery became the pre-assumption.

In order to determine whether or not this media affected the promotion of students' vocabulary mastery, statistical analysis of paired sample test was used. Beforehand, normality test was needed to take as pre-requisite step in applying this t-test.

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			28
Normal Parameters[a,b]	Mean		.0000000
	Std. Deviation		6.37473558
Most Extreme Differences	Absolute		.078
	Positive		.078
	Negative		-.053
Test Statistic			.078
Asymp. Sig. (2-tailed)[c]			.200[d]
Monte Carlo Sig. (2-tailed)[e]	Sig.		.929
	99% Confidence Interval	Lower Bound	.923
		Upper Bound	.936

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.
e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

The normality test above revealed that in the calculation of Kolmogrov-smirnov, the students vocabulary mastery in the pre-test gained a significance result of $0.219 > \alpha$ (0.05), where the significance score was greater than $\alpha = 0.05$. Thus, this statistical computation concluded that the pre-test data was normal. In the post-test, the significance result of $0.047 > \alpha$ (0.05) was obtained, in which this score was higher than $\alpha = 0.05$. Therefore, this statistical analysis confirmed that the post-test data was normal. Since all data in the pre-test and post-test were normal, the next step of the statistical calculation was proceeded by using parametric statistical methods (Paired Sample t-test). The following Table 3 presents the data of Paired sample test:

Table 3 Paired sample-statistics test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	58.3929	28	20.85992	3.94215
	Posttest	82.0000	28	8.67521	1.63946

The output above showed the summary of the results of the descriptive statistics of the pre-test and post-test scores. The average of pre-test score was 55.96 and the post-test one was 77.71. The number of participants used as research samples was 28 students. For the standard deviation of the pre-test was 20.85992 and the post-test was 8.67521. Additionally, the mean standard error for the pre-test was 3.94215 and for the post-test was 1.63946.
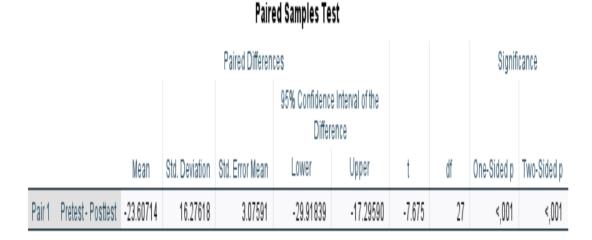
Because the average value of learning outcomes in the pre-test was 55.96 < post-test 77.71, this indicated that there was a difference between the results of the pre-test and post-test. In order to further assessed how significant was the difference, paired correlations applied as presented in below Table 4:

Table 4 Paired sample correlations

Paired Samples Correlations

		N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pair 1	Pretest & Posttest	28	.678	<.001	<.001

The output above showed the results of the correlation test or the relationship between the two data or the relationship between the pre-test and post-test variables in which the correlation coefficient between two variables was 0.678. Since the sig value was 0.001 and 0.001 < from a probability of 0.05, this result showed that there was a relationship between the pre-test variables and the post-test variables. Further analysis of paired sample test was taken and the results can be seen in the following Table 5:

Table 5 Paired-Sample Test

Paired Samples Test

		Paired Differences Mean	Paired Differences Std. Deviation	Paired Differences Std. Error Mean	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper	t	df	Significance One-Sided p	Significance Two-Sided p
Pair 1	Pretest - Posttest	-23.60714	16.27618	3.07591	-29.91839	-17.29590	-7.675	27	<.001	<.001

The computation of "Paired samples test" output above revealed that Sig. (one-sided p & two-sided p) was <0.001, then H0 was rejected and Hα was accepted because <0.05. As paired sample t-test explains that if the p-value is equal to or less than the significance level, the decision is to reject null hypothesis. Thus, the result of this calculation confirmed that statistically, there was a significant effect of independent variable, i.e., Quartet cards game on dependent variable, namely students' vocabulary mastery. To sum, this research concluded that the average difference between

pre-test and post-test learning outcomes of the students' vocabulary achievement showed an influence of the use of Quartet cards game media on their vocabulary mastery.

4. Conclusion

Based on research conducted at MTs Darussalam, the results of this study showed; total of pre-test score was 1567 with an average of 55.96 and the post-test score was 2176 with an average of 77.71. Therefore, it was concluded that the utilization of Quartet cards game promoted the vocabulary mastery of the 7th grade students of MTs Darussalam. These findings were also evidenced by the results of t-test on paired sample test in which the t-value was -7.675 and the critical t-value at the significance level (p) = 0.05 was 1.639, which confirmed the null hypothesis (H0) was rejected and the alternative hypothesis (Ha) was accepted. The data analysis of this study also answered the research question that 'Quartet cards game promoted students' vocabulary mastery'.

Referring to the findings of the research and the conclusion above, the researchers recommend further researchers who are interested to do the research under similar topic to explore the use of Quartet cards game wider by adding more variables such as gender. Additionally, the involvement of more sample with various grades would be strongly suggested too in order to get more various data.

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