
The Effectiveness Of Team Games Tournament (TGT) Learning Model to Improve Memory Skill On Teaching Vocabulary

Wulan Suci Ramadhani
IKIP PGRI Bojonegoro

Meiga Ratih Tirtanawat
IKIP PGRI Bojonegoro

Chyntia Heru Woro Prastiwi
IKIP PGRI Bojonegoro

Alamat : IKIP PGRI Bojonegoro
Suciwulan2445@gmail.com

Abstract. This study presents the author's experiment on the effectiveness of the Teams Games Tournament (TGT) learning model. The purpose of this study is to improve children's memory skills in vocabulary learning in grade 4 elementary school children. The researchers used experimental quantitative methods. In this study, researchers used crossword puzzles as learning media in conjunction with the Team Games Tournament learning model. In this study, the researchers made a comparison between the pre-test and post-test scores, namely the lowest score was 36 and the lowest score of the post-test was 40. And the maximum value of the pre-test was 84 with the maximum value during the post-test was 88, so it was said that the study was quite effective in improving children's memory in 4th grade English vocabulary lessons.

Keywords: *Teams Games Tournament, Memory skills, Vocabulary*

Abstrak. Penelitian ini berisi tentang eksperimen penulis mengenai ke efektifan model pembelajaran Teams Games Tournament (TGT). Tujuan dari penelitian ini adalah untuk meningkatkan kemampuan mengingat anak pada pembelajaran kosakata pada anak tingkat SD kelas 4. Peneliti menggunakan metode kuantitatif eksperimental. Pada penelitian ini peneliti menggunakan crossword puzzle sebagai media pembelajaran yang di gunakan bersamaan dengan model pembelajaran Teams Games Tournament. Pada penelitian ini peneliti mengambil perbandingan antara nilai pre-test dan post-test yakni nilai minimum berada di angka 36 dengan nilai minimum post test berada di nilai 40. Dan nilai tertinggi pre test berada di nilai 84 dengan nilai tertinggi saat post test adalah 88 sehingga dikatakan penelitian tersebut cukup efektif dalam meningkatkan daya ingat anak dalam pelajaran kosakata bahasa inggris kelas 4 SD.

Kata kunci: *Teams Game Tournament, Kemampuan Daya Ingat, Kosa Kata*

INTRODUCTION

In Indonesia, learning activities are still considered weak because teachers usually focus the learning process on teaching students certain topics without considering how students learn. Teachers should not take the lead in carrying out teaching and learning activities, but students should be more active during the learning process (Teladaningsih et al., 2019). (Syaf, 2023) pointed out in an article in Kompasiana that the Indonesian education system still focuses on improving cognitive abilities, especially intellectual knowledge and skills. Children's cognitive abilities are closely related to the development and function of their brains, which allow them to understand, process, and apply information.

Meanwhile, according to an article in FKM UI, Marjan (2022) states that the average cognitive ability of Indonesian children in the PISA survey is 397 points, still below the world average of 500. Based on the identification of this issue, there is a need for improvement in learning activities because, without an active learning process, the possibility of effective learning may be disrupted (Clara Nahak, 2023).

This perspective aligns with Natawijaya's view, as expressed in Depdiknas (2005), which emphasizes that active learning is a teaching and learning system that encourages students' physical, intellectual, and emotional involvement to achieve learning outcomes that encompass cognitive, affective, and psychomotor aspects. However, the focus of this research is on the pre-adolescent age group. The pre-adolescent period, or pre-teen years, is a developmental stage involving the transition from childhood to adolescence.

As children enter pre-adolescence, typically between the ages of 10 to 12 years old, they generally undergo a transition toward adolescence that impacts their social, physical, and cognitive abilities. Primary school marks the beginning of formal education for children. Cognitive development in children refers to processes such as memory, decision-making, and problem-solving. In this context, one of the main focuses in Indonesia should be the memory skills of children. (Putri, 2019). (Slavin et al., 2015) as mentioned in an article on Viva.com, states that according to the Programme for International Student Assessment (PISA), Indonesia ranks 62nd out of 72 countries in terms of children's memory skills.

Based on my first observations from an interview with Mr. Sutriyono, S.Pd.Sd a 4th-grade teacher at SD N Bandungrejo 1 Ngasem, 4th-grade students at SD N Bandungrejo 1 Ngasem tend to have difficulty retaining information in the content being taught. It turned out that there is. Have your class teacher or subject teacher remember it. This is supported by the poor results of midterm exams in odd-numbered semesters, with approximately 62. 22% of students scored below the passing mark and required participation in remedial classes. In contrast, 37. 78% of students achieved a passing grade or higher. Additionally, the average fourth grader at this school seems to face memory problems. This is supported by the statement of the class teacher that children often forget newly learned material. The next day, when the class teacher re-discusses the topic previously covered, almost 90% of the students tend to ask their classmates for answers to the teacher's verbal questions.

To solve this problem, we need learning methods that directly involve students in their learning. The method is called cooperative learning. Collaborative learning is instruction in which students work together in groups to set a common goal. Learning this way places more emphasis on student interaction and allows students to have active communication with their classmates. Through this communication, it is expected that students will be able to master the subject more easily as their level of knowledge and thinking will be consistently appropriate since it is easier for them to receive explanations from their peers than from their teachers.

One cooperative learning model that can be implemented in English language learning is the Team Game Tournament (TGT) model. According to Slavin (2015), this learning model is characterized by students working in small groups, engaging in in-game tournaments, and receiving group rewards. The Team Games Tournament (TGT) learning model was introduced by Johnson in 1975 as one of the cooperative learning approaches. TGT is an easily applicable cooperative learning model that involves the participation of all students without any status differences, engages students as peer tutors, and incorporates elements of games and reinforcement (Maharani et al., 2021). An advantage of the TGT learning model is the presence of academic tournaments within the learning process (Sholeh et al., 2019).

One effort to enhance cognitive development in children is by utilizing the cooperative learning model known as Teams Games Tournaments (TGT). Despite the widespread application of TGT in various contexts, there is limited research specifically examining the use of this model through puzzle media at the elementary school level.

Puzzles are a common form of media used in children's learning. The use of puzzles requires problem-solving, concentration, and logical thinking, all of which are important cognitive skills. Therefore, combining TGT with puzzle media has the potential to create a holistic learning experience that stimulates cognitive development, specifically in terms of memory, in fourth-grade elementary school children. In the preceding study, entitled "Utilization of Crossword Accounting Puzzles to Enrich English Vocabulary for Students of SMK Negeri Temayang, Bojonegoro," the following results were obtained. Through the implementation of the Crossword Accountazze game and design, this PKM activity was found to effectively enhance the English vocabulary of Accounting for class XI students majoring in Accounting at SMK Negeri Temayang, Bojonegoro (Cyntia et al., 2021).

Therefore, this research is expected to make a significant contribution to the improvement of the quality of elementary education through an innovative and effective approach. With this background, the study "Enhancing Cognitive Development in Fourth-Grade Elementary School through the Teams Games Tournament (TGT) Learning Model with Puzzle Media" aims to explore the potential of the TGT learning model through puzzle media in enhancing memory skills.

METHOD

In this research, the researcher identifies with Quantitative research. Experimental is a way to find causal relationships between two factors that are deliberately caused by researchers by eliminating reducing or setting aside other factors that interfere with the research. (Purnomo, 2019). In this study, researchers used a quantitative research design because this research is based on the calculation of statistical values or numbers in the process of finding an observation. This type of

research method is experimental research, which measures the effect of a variable that is manipulated and controlled (independent) on other variables (dependent).

Researchers used a pre-experimental research design with a type of one-group pre-test post-test design, in this design only one class was used, namely the experimental class without a control class. In this study, there is one group that compares the pre-test results with the post-test results of students. The results of the treatment in the group will be compared to see the effect of using TGT on improving the memory skills of grade 4 students of SD N Bandungrejo 1 Ngasem.

In the research design, observation was carried out twice, namely before and after the study. Observation before experiment (1) is called pre-test and after experiment (2) is called post-test. The effectiveness of the instructional treatment is measured by comparing the mean value of the pre-test (01) with the post-test score (02). If 02 has a higher value than 01, it can be said that the treatment is effective. Data analysis technique is a method or way to process data into information so that the characteristics of the data become easy to understand (Syaeful Millah et al., 2023). The data analysis technique used in this research is experimental research. Because this research uses experimental methods that use pre-test and post-test group designs or treatment effectiveness. Then the researcher classifies the data into quantitative data. This will help researchers to make the following conclusions. Prerequisites testing, a. Normality: The normality tests in this study use manual counting with Ms.Exel. b. Hypothesis, testing For testing this hypothesis this research uses a T-test. the researcher will an the result with the T-test formula. Look for the critical price "t" listed in the table "t" value by adhering to the df/db that has been obtained, either at the 5% significance level or 1% significance level. Then compare t (table) with t (count), with the following test criteria: If $t(\text{table}) < t(\text{count}) < t(\text{table})$, then H_0 is accepted If $t(\text{count}) > t(\text{table})$, then H_0 is rejected (Sudijono, 2018). at this stage, the researcher also uses instruments to collect data by making tests. this test is proven its validity by calculating the validity test with reliability.

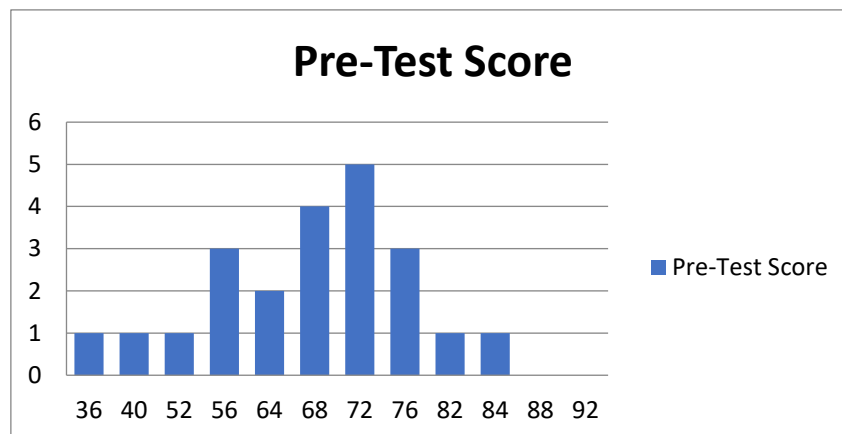
RESEARCH AND DISCUSSION

A. Research Finding

1. Vocabulary Scores in Pre-Test and Post-Test

a. Research Data before Treatment (Pre-Test)

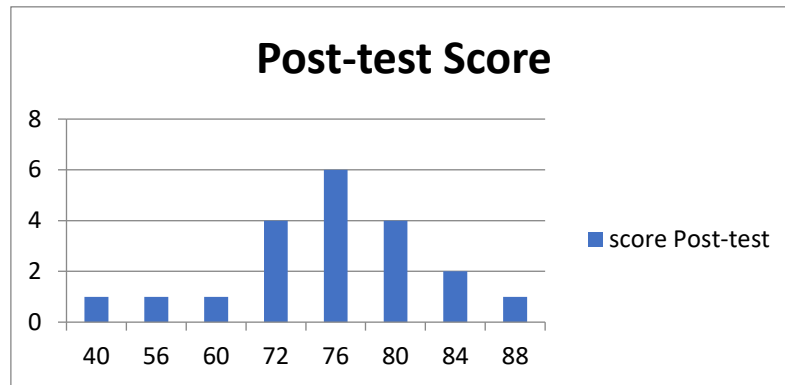
The following is a summary of the assessment data obtained using the Teams Game Tournament (TGT) learning model prior to the commencement of the experiment (Pre-Test). This data is employed to ascertain the initial capacity or initial state of the object under study prior to its implementation or administration of the Teams Games Tournament (TGT) learning model, which employs crossword puzzle media with the learning theme of daily activities. The highest score achieved during the pre-test was 80, while the lowest score was 36.



- *Horizontal : score of student*
- *Vertical : the number of student*

b. Research Data after Treatment (Post-Test)

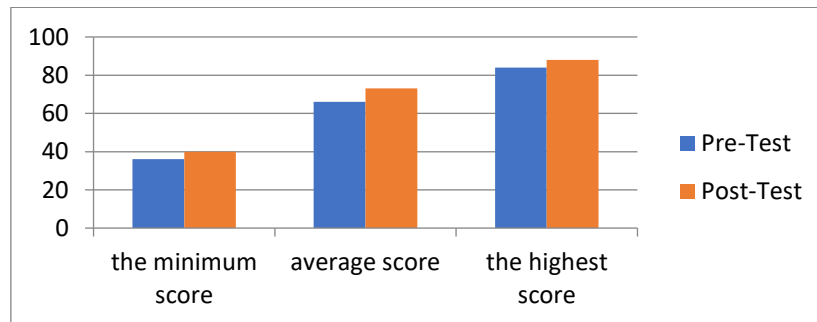
The data obtained following the administration of the Teams Games Tournament (TGT) learning model with crossword puzzle media (Post-Test) reveals that the highest score attained was 88, while the lowest score was 40.



- Horizontal : score post-test
- Vertical : the number of student

c. The Improvement of Post-Test from Pre-Test

The data was collected before and after the experiment (Pre-Test and Post-Test). The researcher then compared the values before and after the experiment. This comparison demonstrated that learning activities using the Teams Games Tournament (TGT) model with crossword puzzle media significantly improved children's ability to remember English vocabulary on the learning theme of daily activities.



2. Normality Test and Hypotesis Test

a. Normality Test

Parametric statistics are only applicable to data that is normally distributed. Consequently, prior to hypothesis testing, data normality testing is conducted.

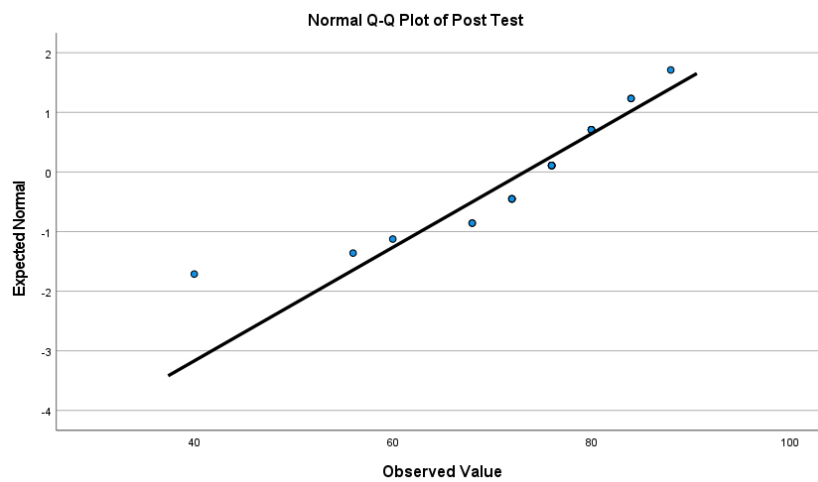
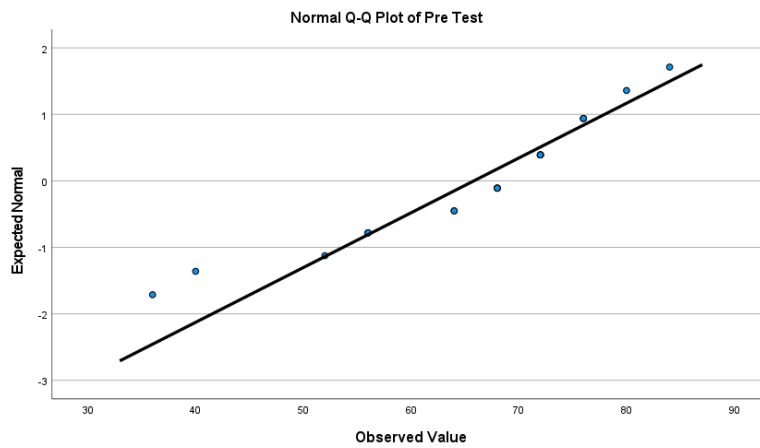
Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre Test	.208	22	.014	.906	22	.040
Post Test	.225	22	.005	.851	22	.004

a. Lilliefors Significance Correction

df : data frequency

Sig : significant



The results of the normality test and the normality plot with calculations using SPSS indicate that the data exhibit normal distribution.

b. Hypothesis testing

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower Upper			
Pair 1	PRE TEST - POST TEST	-7.45455	5.28004	1.12571	-9.79558 -5.11351	-6.622	21	.000

The significant value, which is less than 0.05, indicates that there is a difference or effect from the treatment that has been given. This is evidenced by the treatment given after the pre-test to the post-test. The paired simple t-test table above indicates that the two-tailed significance level is 0.00, which is less than 0.05. This demonstrates a statistically significant difference between the initial variable (pre-test) and the final variable (post-test). This implies that the difference in treatment given to each variable has a significant effect.

B. Discussion

The findings of the preceding research can be utilized to describe the results of the previous chapter, thereby enabling the researchers to respond to the research objectives initially outlined. The following is an explanation of the aforementioned results As previously stated by the researcher. Researchers utilize tests as a means of establishing a baseline for student comprehension of vocabulary. The test employed an indicator of understanding that, when applied in conjunction with the Teams Games Tournament method, can assist students in readily recalling the vocabulary taught. Furthermore, students are encouraged to engage in critical thinking by solving the puzzle boxes provided, which allows them to utilize the facilities at school in a fun and educational manner. The results demonstrate a notable enhancement in students' vocabulary acquisition when the Teams Games Tournament (TGT) learning method is employed in conjunction with crossword puzzle media.

This can be proven by comparing the pre test value to the post test using the t test. Namely in the paired sample test table with df 21 is showing a value of 0.00 which means <0.05 . This value indicates whether the difference between the two sample conditions tested has meaning or not. If the significance value is less than 0.05, then the two variables have a significant difference. That is, the difference in treatment of the sample has a significant effect. (Darmawan et al., 2023) It can be concluded that if $0.00 < 0.05$ then the treatment has a significant effect on students of SDN Bandungrejo 1 Ngasem.

CONCLUSION AND SUGGESTION

This activity enhances children's memory abilities, as it employs a novel approach to learning that is both engaging and new to students. This enthusiasm for the methods provided contributes to the effectiveness of the learning activities. Furthermore, this strategy serves as a subtle reminder for students, as it is repeated frequently, allowing them to easily recall the word. As students engage in group activities, they are able to discuss and listen to commands effectively, thereby enhancing their memory of vocabulary taught by the teacher. Interesting activities. The implementation of learning activities utilizing the Teams Games Tournament (TGT) method has been demonstrated to have a notable impact on student learning outcomes, as evidenced by the observed difference in scores between the pre-test and post-test. This difference, which can be quantified by the average value of the pre-test (65) and the average post-test (74), represents a notable increase in scores between the two assessments. It should be noted that the study is not yet complete. Consequently, researchers anticipate that future researchers will be able to employ methodologies that can be utilized over an extended period of time. The researchers have only modified the questions by changing the numbers, and it is hoped that future researchers will be able to create different pre-test and post-test questions. It is hoped that future researchers will be able to provide a sufficiently long period of time between the commencement of treatment and the administration of the post-test.

REFERENCES

Clara Nahak, T. (2023). Meningkatkan Prestasi Belajar Bahasa Inggris Melalui

- Pembelajaran Kooperatif Model Team Game Tournament (TGT) Pada Siswa Kelas XI IPA 1 SMA Negeri 1 Malaka Barat Tahun Pelajaran 2022/2023. *Prosiding Seminar Nasional Pendidikan, Bahasa, Sastra, Seni, Dan Budaya*, 2(1), 204–214. <https://doi.org/10.55606/mateandrau.v2i1.267>
- Cyntia, Meiga, M. S. (2021). Pemanfaatan crossword accounting puzzle untuk memperkaya kosakata Bahasa Inggris pada siswa SMK Negeri Temayang, Bojonegoro. *Empowerment Community*, 6(6), 891–897.
- Maharani, D. S., Indrawadi, J., & Amri, U. (2021). THE USE OF THE TEAMS GAMES TOURNAMENT (TGT) MODEL ASSOCIATED WITH THE MEDIA OF THE SNAKES AND LADDER GAMES TO IMPROVE THE STUDENTS' LEARNING ACTIVITIES OF CLASS V SDN 13 KAPALO KOTO KOTA PADANG. *Primary: Jurnal Pendidikan Guru Sekolah Dasar*, 10(4), 1069. <https://doi.org/10.33578/jpkip.v10i4.8474>
- Purnomo, E. (2019). Pengaruh Program Latihan terhadap Peningkatan Kondisi Fisik Atlet Bolatangan Porprov Kubu Raya. *JSES : Journal of Sport and Exercise Science*, 2(1), 29. <https://doi.org/10.26740/jses.v2n1.p29-33>
- Putri, P. O. (2019). Implementasi Model Pembelajaran Team Game Tournament (TGT) Untuk Meningkatkan Hasil Belajar Siswa. *Intersections*, 4(2), 8–16. <https://doi.org/10.47200/intersections.v4i2.496>
- Sholeh, D. R., Waluyo, H. J., Sudikan, S. Y., & Wardani, N. E. (2019). Implementasi Model Pembelajaran Drama Dengan Strategi Teams Games Tournament (Tgt) Berbasis Dongkrek. *Dialektika: Jurnal Bahasa, Sastra, Dan Pendidikan Bahasa Dan Sastra Indonesia*, 6(1), 1–12. <https://doi.org/10.15408/dialektika.v6i1.9679>
- Slavin, R. E., Hurley, E. A., & Chamberlain, A. (2003). Cooperative Learning and Achievement: Theory and Research. *Handbook of Psychology, April*, 177–198. <https://doi.org/10.1002/0471264385.wei0709>
- Syaeful Millah, A., Arobiah, D., Selvia Febriani, E., & Ramdhani, E. (2023). Analisis Data dalam Penelitian Tindakan Kelas. *Jurnal Kreativitas Mahasiswa*, 1(2), 140–153.
- Teladaningsih, O., Mawardi, M., & Huliana, I. (2019). Implementasi Model Pembelajaran Teams Games Tournament Meningkatkan Keterampilan Kolaboratif Peserta Didik Kelas 4 Sd. *Pendas : Jurnal Ilmiah Pendidikan Dasar, IV*. <https://doi.org/10.23969/jp.v4i1.1530>