



## The Effect of the Team Quiz Learning Model on Thematic Learning Outcomes of Class IV Students in State Elementary School

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**Abstract:** This study was to determine the effect of the quiz team learning model on the thematic learning outcomes of sub-theme 3 of my parents' work in class IV SD Negeri 091281 Batu IV. This type of research used in this research is a quantitative experimental method with a one-group pretest-posttest research design. In this study, the population was all fourth-grade students at SD Negeri 091281 with a total of 38 people, and the research sample was group A with a total of 24 students. The sampling technique is purposive sampling. Data collection techniques in this study used the results of multiple-choice test questions. The data analysis technique used is the Normality Test and Hypothesis Test. The results of calculations using the paired sample test obtained  $t_{count} = 19.096 > t_{table} = 1.713$ . From these results, it can be seen that  $H_0$  is rejected, which means that using the quiz team learning model affects the thematic learning outcomes of class IV SD Negeri 091281 Batu IV.

**Abstrak:** Penelitian ini adalah untuk mengetahui pengaruh model pembelajaran team quiz terhadap hasil belajar tematik sub tema 3 pekerjaan orangtuaku di kelas IV SD Negeri 091281 Batu IV. Jenis penelitian ini yang digunakan pada penelitian ini adalah metode kuantitatif eksperimen dengan rancangan penelitian one group pretest-posttest. Dalam penelitian ini populasinya adalah seluruh siswa kelas IV SD Negeri 091281 dengan jumlah 38 orang. Sampel penelitiannya adalah kelompok A yang jumlah siswa 24 orang. Dengan Teknik pengambilan sampel yaitu purposive sampling. Teknik pengumpulan data dalam penelitian ini menggunakan hasil tes soal pilihan ganda. Adapun Teknik analisis data yang digunakan adalah Uji Normalitas dan Uji Hipotesis. Hasil perhitungan dengan menggunakan paired sample test memperoleh  $t_{hitung} = 19,096 > t_{table} = 1,713$ . Dari hasil tersebut terlihat  $H_0$  ditolak itu artinya terdapat pengaruh penggunaan model pembelajaran team quiz terhadap hasil belajar tematik siswa kelas IV SD Negeri 091281 Batu IV.

## A. Introduction

Education plays an essential role in the process of advancing human life, which has the potential to develop critical thinking. As managers of the teaching and learning process, educators play an essential role in improving education quality. Education is a form of effort to improve the quality of human resources (Advin & Rahmatina, 2020). Awareness of the importance of education has encouraged various efforts and attention from all levels of society toward every development in the world so that every country makes education the main concern (Sari et al., 2018).

One of the supports for the success of education is the process of each lesson. According to Sanjani (in Aroma, 2020), the teacher plays a significant role in teaching and learning. Educators in the 2013 curriculum must be more creative to create a learning atmosphere. Teachers have a significant role in world education, especially during teaching and learning activities, because students need a teacher to help them self-development and optimize their talents and abilities or learning outcomes (Widiastuti & Purnawijaya, 2021). After carrying out learning activities, we will achieve or get results or grades, often called learning outcomes (Ozer et al., 2021). In achieving satisfactory learning outcomes, factors must always influence achieving this. The factors that affect learning outcomes can be divided into two types, namely factors that originate from within the student (internal), such as interest, attention, and motivation, and factors that originate outside the student's self (external). Such as factors from parents, school, and society (Junaidi & Taufiq, 2020). According to Yudha (in Hasyim et al., 2020), learning outcomes are abilities students acquire after learning activities that tests can measure to improve learning outcomes. A practical or good learning model is needed so that it can emerge and arouse students' enthusiasm for learning. Thus student learning outcomes will increase (Azmi, 2023). Meanwhile, the current reality is that student learning outcomes are still relatively low (Manurung et al., 2022).

SD Negeri 091281 is one of the standard education units in the Simalingun district. Based on the results of observations on June 20, 2022, at SD Negeri 091281 in class IV, the teaching and learning process in class is carried out using a conventional model or does not vary. This model tends to position the teacher as the center of learning so that students are less active in participating in learning. The communication that occurs is one-way communication, namely the teacher to students, causing boredom for students (Dewi & Wardani, 2020). In the learning process, not all students can pay attention to the explanation conveyed by the teacher, and some students are only silent when the teacher asks questions regarding learning material (Siregar & Junita, 2016). Moreover, only a few students were active in class, they asked several questions related to the material that had been taught, but there were still many students who were only listeners and classified as passive or did not want to know in class, so that it had an impact on student learning outcomes. The thematic minimum completeness criteria (KKM) value determined by the school is 70.

Thematic learning is learning based on a theme that links several subjects so that children will more easily understand a concept. It is only based on one theme for several subjects being taught some of the characteristics of thematic learning. According to

Assingkily (in Tillawari, 2020), including student-centered, providing direct experience, separators between subjects are not so visible, and concepts from several subjects are presented in one lesson. They can develop according to the interests and needs of the participants. Educate (Parnayathi, 2020).

Here the teacher needs to package or design learning experiences that will affect the meaningfulness of student learning (Maharani et al., 2019). Learning experiences that show the connection of conceptual elements make the learning process more effective. The conceptual link between the subjects studied will form a scheme so that students will gain completeness and completeness of knowledge (Andrini, 2021).

Based on the test shows that student learning outcomes in thematic subjects are still relatively low or below the KKM standard. This can be seen from the student scores. That is, out of 24 students, only eight students (33%) scored > 70 or met the KKM score. At the same time, 16 students (67%) scored <70. Thus, from the data above, many thematic learning outcomes still need to be completed in class IV students. This type of team quiz begins with the teacher explaining the material classically, and then students are divided into three major groups. All group members study the material together, give directions, and give each other questions and answers to understand the subject. After finishing material, an academic competition was held.

Using the team quiz model in the thematic learning process is by using a learning model that can improve student thematic learning outcomes (Purwati, 2019). A learning model that can change a student's negative view of thematic lessons into fun lessons that provide many opportunities for children to physically function elements and practice responsibility and cooperation (Nurjanah et al., 2020). In this case, the questions given in the quiz model are in the form of experimental data, which students and their group mates discuss. Students, in this case, gain knowledge by analyzing a problem (Israil, 2019). These questions can grow and generate curiosity in students (Yulia et al., 2019).

This is according to research by Sundari & Rukoyah (2019), titled "The Influence of the Quiz Team Learning Model on Social Science Learning Outcomes of Fifth Grade Elementary Students. This study showed that the average social studies learning outcomes of students in the experimental class before being given treatment using the quiz team learning model were 65.44. After treatment with the quiz team learning model, it became 80.55. Based on the calculation of the t-test of the experimental and control classes, the results obtained were  $t_{count} > t_{table}$  ( $4.637 > 2.666$ ). With a significant level of  $\alpha = 0.01$ , the decision taken is that  $H_1$  is accepted and  $H_0$  is rejected, which states that there is an influence on social studies learning outcomes of students who are taught using the team quiz learning model with social studies learning outcomes of students who are taught using the lecture method.

## B. Method

The type of research used in this research is pre-experimental research. This experimental research involves only one group without any comparison or control group. This method is called the quantitative method because the research data is in the form of

numbers and analysis using statistics. Quantitative research is often called the positivistic, scientific, and discovery method because this method can be discovered and developed as a new science and technology (Aprilia, 2020). The author uses the quantitative method because it aligns with this research's objective, which wants to determine whether there is an "Influence of the Quiz Team Model on Thematic Learning Outcomes of Grade IV Students at SD Negeri 091281 Batu IV".

The research design used was the One Group pretest-posttest control design. This research was carried out in one group or one class, and the class was given a pre-test before being given treatment, then the group was given treatment using the team quiz model.

**Table 1.** One Group Pretest-Posttest Research Design

Class	Pre-test	Treatment	Post-test
Experiment	O <sub>1</sub>	X	O <sub>2</sub>

This research will be conducted at SD Negeri 091281 Batu IV, Siantar District, Simalungun Regency. The population in this study were all fourth-grade students at SD Negeri 091281 Batu IV, totaling 38 students. The sampling technique in this study used purposive sampling. According to Sofyan (2019), purposive sampling is a technique that takes subjects not based on strata, random, or region but on a specific purpose. The sample in this study was taken from the population of class IV A students at SD Negeri 091281 Batu IV, as many as 22 students.

To obtain data about student learning outcomes in Theme 4, Various jobs, Sub-theme 3 is my parents' work. The data instrument used in this study is a multiple-choice test of 30 questions with four answer choices. The questions consist of C1 (Knowledge), C2 (Understanding), and C3 (Application). By category, each correct answer is given a score of 1, and an incorrect answer is given a value of 0.

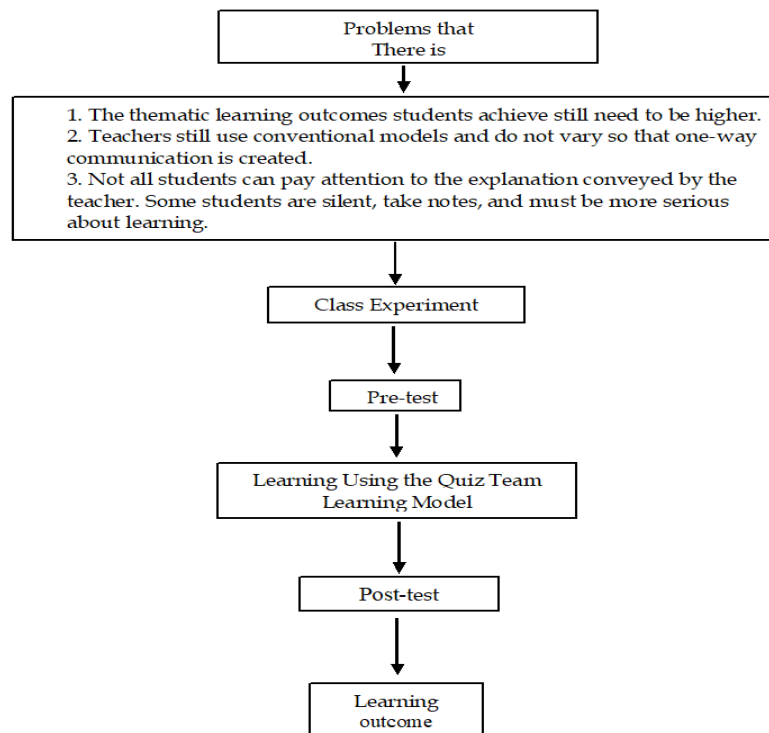


Figure 1. Conceptual Framework

The data collection technique in this study used a test technique. In the research, the tests were given to the experimental class, namely class A, with two tests: pre-test and post-test. In the documentation, the researcher collects data using pictures and the value of learning outcomes during the research (Fauziyah & Anugraheni, 2020). To test the test assessment instrument. Construct validity testing can be done by consulting the assessment instrument with experts. To further test the validity of the instrument items, after consulting with experts, they were then tested and analyzed by item analysis. Analyzing the data by describing the collected data without making general conclusions, based on this in calculating descriptive statistics in this study using SPSS Statistics 22.

**C. Result and Discussion**  
**Result**

Validity testing was conducted in class IV SD Negeri 122344 Pematangsiantar with 14 students. Validity test using product moment with SPSS. Decisions are taken through a validity test with a  $r_{table}$  limit of 0.532 with a significance of 5% or 0.05. The results of the validity trial calculations can be seen in the table.

Table 2. Summary of Validity Test Results

Question Number	$r_{count}$	$r_{table}$	Conclusion
Problem 1	0.556	0.532	Valid
Problem 2	0.669	0.532	Valid

Question Number	$r_{\text{count}}$	$r_{\text{table}}$	Conclusion
Problem 3	0.701	0.532	Valid
Problem 4	0.623	0.532	Valid
Problem 5	0.573	0.532	Valid
Problem 6	0.537	0.532	Valid
Problem 7	0.701	0.532	Valid
Problem 8	0.637	0.532	Valid
Problem 9	0.635	0.532	Valid
Problem 10	0.556	0.532	Valid
Problem 11	0.603	0.532	Valid
Problem 12	0.637	0.532	Valid
Problem 13	0.636	0.532	Valid
Problem 14	0.566	0.532	Valid
Problem 15	0.566	0.532	Valid
Problem 16	0.598	0.532	Valid
Problem 17	0.667	0.532	Valid
Problem 18	0.573	0.532	Valid
Problem 19	0.588	0.532	Valid
Problem 20	0.685	0.532	Valid
Problem 21	0.626	0.532	Valid
Problem 22	0.588	0.532	Valid
Problem 23	0.811	0.532	Valid
Problem 24	0.653	0.532	Valid
Problem 25	0.826	0.532	Valid
Problem 26	0.653	0.532	Valid
Problem 27	0.573	0.532	Valid
Problem 28	0.557	0.532	Valid
Problem 29	0.560	0.532	Valid
Problem 30	0.598	0.532	Valid

So the instrument is said to be valid if the  $r_{\text{count}} > 0.532$ . The validation above shows that questions 1 to 30 are valid because the value of  $r_{\text{count}}$  is greater than  $r_{\text{table}}$ , namely 0.532. Because all the questions are valid, so all are included in the research questions.

**Table 3.** Reliability Summary Results

Number of Questions	$r_{\text{alpha}}$	$r_{\text{criteria}}$	Information
14	0.946	0.7	Reliable

The results of calculating the reliability of the test instrument using the Alpha formula in SPSS statistics 22 with the criteria of a research instrument are said to be reliable if it is more than 0.7. Based on the test table in the reliability test results, it is known that the ralph number is 0.946, which is greater than the criterion, which is 0.7. Therefore, the research instrument used to calculate the questions is reliable.

Based on the test above, the results of testing the level of difficulty of the questions show that five questions are classified as difficult, namely numbers 9, 13, 21, 23, and 26, and questions that are classified as 24 questions, namely questions number 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 22, 24, 25, 27, 28, 30. At the same time, there is one question that is relatively easy, namely question number 29. test results, it is known that 28 questions are classified as good, namely questions number 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, while two questions are classified as very good, namely questions number 23 and 25.

### Descriptive Statistical Analysis

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The pre-test was given before the treatment was given. The results of the calculation of the pre-test descriptive data. The summary results of the pre-test calculations are in the table below:

**Table 4.** Pre-test Data Descriptive Summary Results

Pre-test Value	
Average	59,88
At a minimum	40
Maximum	73

Based on the table of results of the descriptive summary of the pre-test data above shows that the average value of the pre-test is 59.88. The minimum score from the pre-test results is 40, and the maximum score is 73.

#### Thematic Learning Outcomes Using the Quiz Team Learning Model for Grade IV Students at SD Negeri 091281 Batu IV

The post-test was given after the treatment was given. The results of calculating the post-test descriptive data can be seen in Appendix 15. The summary results of the post-test calculations are in the table below:

**Table 5.** Summary Results of Post-test Data Descriptions

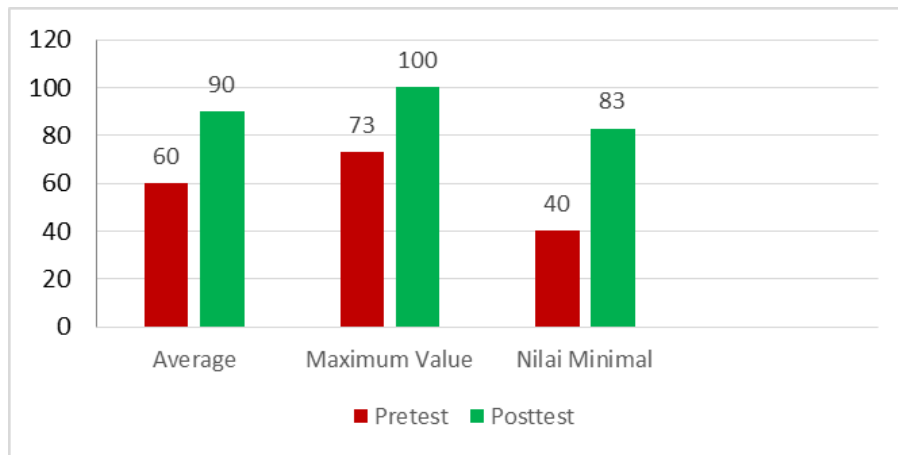
Post-test Value	
Average	90.46
At a minimum	83
Maximum	100

Based on the results of the post-test data summary description table above, the student's post-test average score is 90.46. The minimum value of the post-test results is 83, and the maximum is 100.



### Pre-test and Post-test Results Diagram

Based on the analysis of the descriptive results of the pre-test and post-test data, which totaled 24 students, the results of the diagram are as follows:



**Figure 2.** Pre-test and Post-test Scores Results

Based on the diagram above, student learning results can be seen, where the red color is for the pre-test results data, and the green color is for the post-test data. From the diagram above, it can be concluded that there are differences in the level of achievement of student learning outcomes from the pre-test and post-test data.

### Normality

The normality test in this study used the one-sample Kolmogorov-Smirnov test, with the results calculated using SPSS Statistics 22. The data is usually distributed if the significant value is > 0.05. The results of the normality test calculations can be seen in Appendix 16. The results of the normality test summary are as follows:

**Table 6.** Summary of Normality Test Results

$t_{count}$	Significant Level
0.20	0.05

Based on the table above, it can be seen that  $t_{count} = 0.20 >$  a significant level of 0.05. Thus the data is said to be normally distributed.

### Hypothesis Testing

The hypothesis in this study uses a paired sample test with a calculation system using SPSS Statistics 22. Where  $H_a$  is accepted if  $t_{count} > t_{table}$ . The results of the calculation of the hypothesis test can be seen in Appendix 17. The summary results of the hypothesis test are as follows:



**Table 7.** Hypothesis Summary Results

$t_{\text{count}}$	$t_{\text{table}}$
19.09	1.71

Based on table 4.8 above, it is known that  $t_{\text{count}} = 19.09 > t_{\text{table}} = 1.71$ . From these results, it can be seen that  $H_a$  is accepted, which means that there is an effect of using the quiz team learning model on the thematic learning outcomes of fourth-grade students at SD Negeri 122345 Pematangsiantar.

## Discussion

This research was conducted to determine the effect of the team quiz learning model on the thematic learning outcomes of class IV SD Negeri 091281 Batu IV. The researcher chose the team quiz model because it can build good interactions between students and other students, encourage student activity and make students dare to express ideas/opinions in solving a problem in the learning process. In this learning model, students dominate more, and the teacher only acts as a facilitator.

In this study, researchers used the One Group Pretest-Posttest Design experimental research. In the research process, the researcher first gave an initial test to students before treatment using the team quiz model and gave a final test after treatment using the team quiz. The study's results regarding the comparison of statistical values showed that the number of samples was 24 people, the pre-test value for the lowest score was 40, and the highest score was 70. The post-test score for the lowest score was 83, and the highest score was 100. The pre-test average was 59.87, and the average - average post-test was 90.45.

After conducting research at SD Negeri 091281 Batu IV, it is evident that each student experienced changes before and after the implementation of the team quiz model, namely from those who had less interest in learning to become enthusiastic in participating in lessons, from those who were not active or only passive in learning to become more active, the spirit of solidarity or cooperation increases and those who do not understand, as seen in student learning outcomes. Where learning outcomes are abilities acquired by students after going through the process of learning activities.

The results showed that the comparison of learning outcomes categories showed the frequency of pre-test results, with an average result of 59.88, a maximum score of 73, and a minimum of 40. The post-test score with an average of 90.46, the minimum score was 83, and the maximum was 100. After using the team quiz model, some changes occurred in student learning outcomes. Namely, student learning outcomes increased more than before implementing the team quiz model.

The results obtained from the t-test using the paired sample test obtained that  $t_{\text{count}} = 19.096 > t_{\text{table}} = 1.713$ . From these results, it can be seen that  $H_a$  is accepted, which means that there is an effect of the use of the quiz team learning model on the thematic learning outcomes of fourth-grade students at SD Negeri 122345 Pematangsiantar.

Based on the study's results, it was found that the team quiz model could improve students' thematic learning outcomes. Learning is a process characterized by a change in a person, either from behavior or behavior. According to Ariyanto (in Sari et al., 2018), learning outcomes are changes in the form of physical, mental, and intellectual skills that proceed from learning activities both at the formal education level, such as schools, and at the non-formal education level such as in the family and community environment which will be used in everyday life.

According to Jubaidah (in Rachmadtullah et al., 2019), the team quiz model is an active learning model in which students are divided into three large groups. All members study the material together, discuss the material, give directions to each other, and give each other questions and answers after the material is finished, an academic competition to develop or improve the mindset and responsibility of students (Rahardjanto & Fauzi, 2019). Based on the explanation above, it can be concluded that the team quiz model is a learning model that provides benefits for children in improving learning outcomes.

#### D. Conclusion

Thematic learning is learning guided by one theme that connects several subjects, so children will more easily understand a concept because it is only based on one theme for several subjects taught some of the characteristics of thematic learning. In the learning process, not all students can pay attention to the explanations conveyed by the teacher, and some students are only silent when the teacher asks questions related to learning material.

Based on the acquisition of research results and existing data, researchers can conclude that using the team quiz model positively affects the thematic learning outcomes of SD Negeri 091281 Batu IV students. This can be proven from the results of hypothesis testing that has been carried out using SPSS Statistics 22 obtained  $t_{\text{count}} = 19.096 > t_{\text{table}} = 1.713$ . These results show that  $H_a$  is accepted, which means that using the quiz team learning model affects the thematic learning outcomes of class IV SD Negeri 091281 Batu IV.

The suggestions given by researchers are by the results of research that have been carried out by researchers, namely as follows for students so that students can take a role / be active, be polite and polite to teachers, and express opinions in polite and good language. For Class IV teachers, it is recommended that teachers use the team quiz learning model because using team quizzes can increase student enthusiasm in the learning process so that learning outcomes can increase. Researchers, so that this research can become information for further research.

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