



The Influence of the Inquiry Learning Model Based on the Quizizz Application on the Learning Outcomes of Class IV Students of State Elementary School 064022 Medan Tuntungan

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ABSTRACT

This research aims to determine the effect of the Inquiry Learning learning model based on the Quizizz application on the learning outcomes of class IV students at SD Negeri 064022 Medan Tuntungan for the 2023/2024 academic year. This type of research is quantitative using experimental methods. The population of this research was class IV students at SD Negeri 064022 Medan Tuntungan, totaling 29 students. Sampling was taken using probability sampling techniques and was obtained from class IV, totaling 29 students. The results of this research show that student learning outcomes are in the very good category with an average of 81.1. The results of this research show that the correlation test results can be seen that the correlation coefficient is 0.816, meaning $r_{count} (0.816) \geq r_{table} (0.367)$, so h_a is accepted. So there is a very strong influence between the Inquiry Learning model based on the Quizizz application on the learning outcomes of class IV students at SD Negeri 064022 Medan Tuntungan. It can also be seen from the t-test where $t_{count} \geq t_{table}$, namely $7.328 \geq 2.045$, thus stating that h_a is accepted. This shows that there is a significant positive influence from using the Inquiry Learning model based on the Quizizz application on the learning outcomes of class IV students at SD Negeri 064022 Medan Tuntungan for the 2023/2024 academic year.

Keywords: *quizizz application based learning model, learning outcomes*

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INTRODUCTION

Education is very important for the government in Indonesia to pay attention to. Education in Indonesia shows the quality of human resources available in various schools. Education at school can build character, have the ability to think, have a good personality so that you are able to change the condition of a nation for the better. Education is the process of changing the attitudes and behavior of a person or group of people in an effort to mature humans through teaching and research efforts (Siregar, 2022: 151). Through the education process, it is hoped that humans will become intelligent and have abilities which are usually called skills in living life. The relationship between education and social conditions is very close so that education may experience a process of specialization and institutionalization in accordance with the demands of a complex and modern society (Handayani, 2012: 18)

Education is carried out to form quality human resources. Education is one of the foundations for exploring and developing one's potential through the learning process carried out by students in the cognitive, affective and psychomotor domains. Education must be planned so that the desired goals can be achieved well. These objectives have been operationally formulated in each teaching material in teaching activities. Education is also a place of interaction between students and teachers to practice their language skills and self-control over their environment.

The aim of national education is stated in Republic of Indonesia Law No.2 article 3, namely. (1) the realization of an intelligent nation, (2) human beings who are complete, have faith and are devoted to God Almighty, (3) have noble character, (4) are skilled and knowledgeable, (5) are physically and spiritually healthy, (6) have a stable and independent personality, (7) be responsible for society and nationality. According to Lawe (2018:27) teachers as educators in designing learning must be able to adapt the planned designs and strategies to the characteristics and cognitive development of elementary school age students.

The role of education is very important to ensure the survival of the state and nation, because education can improve and develop the quality of human resources (HR). One effort to improve the quality of education is by improving the teaching and learning process. In the learning process, teachers are required to have patience, tenacity, an open attitude, and be able to create active teaching and learning situations. Teachers are also required to be skilled in choosing and using teaching methods that are appropriate to the conditions they face. Elementary schools are educational institutions that provide six-year education programs for children aged 7-12 years. Education in elementary schools aims to provide students with basic abilities in the form of knowledge, skills and attitudes that are useful for them according to their level of development, and prepare them to continue their education to the next level. Education is carried out to prepare citizens to be able to play an active role in all fields of life, be intelligent, active, creative, skilled, honest, disciplined, and have high morals, democracy and tolerance by prioritizing national unity. This means that education functions as a developer of knowledge, skills, values and culture.

Based on the results of observations made by the author, the ongoing learning is still monotonous, such as learning only focusing on the teacher, lack of teacher skills, and use of media that is not optimal. Learning feels monotonous because the learning that takes place focuses on the teacher, this is because the teacher still uses the lecture method in learning. In ongoing learning, teachers are expected to use learning models and media so that learning that takes place is not monotonous, focusing only on the teacher, but rather that students are also actively involved in the ongoing learning process. By using media and models in learning, the learning process will feel more fun and not boring.

Apart from that, the reality on the ground also shows a lack of student participation in learning. This is because there are still students who seem nervous when learning takes place. Impressed nervous in learning, influenced by learning that is too focused on learning. In the learning process teachers rarely use learning models, so students feel bored, bored and lazy to listen to the teacher's explanations. This causes some students to experience difficulties in participating in teaching and learning activities. Apart from that, students' lack of self-confidence in expressing opinions in learning affects learning outcomes, so that student learning outcomes are low.

Table 1. Grade IV Student Grades at SDN 064022 Medan Tuntungan for the 2022/2023 Academic Year

Subjects	Minimum Completeness Criteria Score	The number of students	Percentage	Information
Indonesian	>70	18	61,91%	Complete
	<70	11	38,09%	Not Complete
natural science	>70	12	42,85%	Complete
	<70	17	57,15%	Not Complete
social science	>70	10	33,33%	Complete

Data Source: State Elementary School 064022 Medan Tuntungan

Based on table 1., it is known that the minimum completion criteria (KKM) in thematic learning is 70. The average score of class IV students who reached the KKM, in Indonesian language learning, 11 students or 38.09% did not complete it and 18 students or 61.90% completed it. % who reach KKM. In science learning,

17 students or 57.14% did not complete it and 12 students or 42.85% reached the KKM. In social studies learning, 19 students or 66.67% of students did not complete it and 10 students or 33.33% reached the KKM.

By considering the challenges faced in the learning process, teachers can choose and use appropriate strategies in an effort to achieve learning goals. Inappropriate learning strategies will become a barrier to the smooth learning process. Thus, the strategy implemented by a teacher will get optimal results if it can be used to achieve the set goals.

Based on the problems above, the researcher tried to apply the Inquiry Learning learning model based on the Quizizz application to improve student learning outcomes. According to Rasyidah (2018: 130) "The inquiry learning model is a series of learning activities that maximally involve all students' abilities to search and investigate systematically, critically, logically, analytically, so that they can formulate their own discoveries." In accordance with the opinion of Prasetyo (2021:111) "In implementing the Inquiry learning model, students learn more on their own and develop creativity in solving problems. This is because the Inquiry Learning learning model seeks to instill the basics of scientific thinking in students." According to Rahmadhany (2020:2694) the advantages of the Inquiry learning model are: (1) students are placed as active learning subjects, (2) it always involves students in searching and processing information, so that students have the ability to think scientifically. (3) students gain a better understanding and will be more interested in learning.

Active involvement of students in learning activities can have a positive impact on their learning outcomes. Learning outcomes are the abilities achieved by students after receiving learning. According to Rahmadhany (2020:2695) that learning outcomes are criteria used to see the level of students' understanding of the learning materials that have been studied. "Learning results can be of direct benefit to students if they can master the subject matter knowledge well." The learning activities carried out are very important in determining a person's learning outcomes. Therefore, the use of the Inquiry Learning learning model is one of the things that can influence learning activities.

Therefore, collaborating with the Quizizz application can also improve student learning outcomes and can help educators/teachers. The Quizizz application is an application that supports learning, from creating materials, exercises and quizzes with attractive visuals Mahayana (2021:10). Making exercises or quizzes with visuals means that the teacher can add pictures to the questions. Adding pictures to the questions makes students understand the material better and makes it easier to answer them. In this quizizz application, students can also see the ranking they have achieved so that they can motivate students to achieve satisfactory learning results Annisa (2021:3661). Quizizz motivates students to be involved and interested in doing exercises and quizzes to obtain the expected results. From this, Quizizz is an application that can simplify the learning process and serve as a learning medium in the classroom. The use of learning media based on the Quizizz application makes teaching and learning activities interesting and the means will be more practical to use, so that students are motivated and can easily understand the material and can achieve learning outcomes as expected.

We can apply Quizizz-based learning media to several slides of material that the teacher teaches, interspersed with interesting questions that will test how well students understand the material being presented, so that previously we only knew Quizizz as a nosebag as a question/quiz service provider. We can use it as a learning medium that can help teachers create a pleasant learning atmosphere.

LITERATURE REVIEW

Inquiry Learning Learning Model

The inquiry learning learning model seeks to instill the basics of scientific thinking in students, and places students in a role that requires great initiative in discovering important things for themselves. According to Nuraini, (2022:308) states that the inquiry learning model is a learning activity where students are encouraged to learn through their own active involvement with concepts and principles, and teachers

encourage students to have experiences and carry out experiments that enable students to discover principles.-principles for themselves.”

Meanwhile, according to Pasaribu, (2019:77) says that "The Inquiry Learning learning model is a way of delivering lessons by examining something that is critical, analytical and argumentative (scientific) by using certain steps towards a conclusion." According to Damayanti, (2014:148) The Inquiry Learning learning model is a series of learning activities that maximally involve all students' abilities to search and investigate systematically, critically, logically, analytically, so that they can formulate their own findings." According to Dewi, et al (2016), the Inquiry Learning learning model is a learning innovation that can direct students to make discoveries so that they can gain deeper knowledge. This learning model emphasizes the way a person thinks and its impact on the way information is processed.

The Inquiry Learning learning model emphasizes maximum student activity to search and discover, meaning that the Inquiry Learning learning model places students as learning subjects. In the learning process, students not only act as recipients of lessons through verbal explanations from the teacher, but they also play a role in discovering the essence of the lesson material themselves. The Inquiry Learning learning model aims to develop students' ability to think systematically, logically and critically, or develop intellectual abilities as a process of mental processes. In this way, students are not only required to master the subject matter, but also how they can use their potential.

Based on several expert opinions above, it can be concluded that the Inquiry Learning learning model is a learning process that is built based on the formulation of problems created by students in learning. In learning, students are maximally involved in their ability to search for and investigate a problem systematically, critically, logically, analytically so that they can gain in-depth knowledge.

Steps for Implementing the Inquiry Learning Model

In implementation, the benefits of the Inquiry learning model can be realized if you apply the right steps or teaching and learning process, using the Inquiry learning learning model. The application of learning models in learning activities must be adjusted to the steps of the learning model used. In general, the steps for implementing Inquiry Learning (Rawa, 2019:38) are as follows: a) Orientation, The orientation step is a step to foster a responsive learning atmosphere or climate. In this step, the teacher conditions students so that they are ready to carry out the learning process. Teachers stimulate and invite students to think about solving problems. The orientation step is a very important step. The success of this strategy really depends on the student's willingness to carry out activities using their abilities in solving problems. Without the will and ability the learning process will not run smoothly, b) Formulate the Problem, Formulating a problem is a step in bringing students to a problem that contains a puzzle. The problems presented are problems that challenge students to think about solving the puzzle. It is said that the puzzle in the problem formulation that is intended to be presented is because the problem certainly has an answer, and students are encouraged to look for the right answer. The process of looking for answers is very important in the Inquiry Learning strategy, therefore through this process students will gain very valuable experience as an effort to develop mentally through the thinking process, c) Formulate a Hypothesis, A hypothesis is a temporary answer to a problem being studied. As a temporary answer, the hypothesis needs to be tested for truth. An estimate as a hypothesis is not just any estimate, but must have a solid basis for thinking so that the hypothesis raised is rational and logical. The ability to think logically itself will be greatly influenced by the depth of insight possessed and breadth of experience. Thus, any individual who lacks insight will find it difficult to develop a rational and logical hypothesis, d) Collecting Data, Collecting data is the activity of gathering information needed to test hypotheses. In Inquiry Learning, collecting data is a mental process that is very important in intellectual development. The data collection process not only requires strong motivation to learn, but also requires perseverance and the ability to use one's thinking potential, e) Testing the Hypothesis, Testing a hypothesis is determining the answer that is considered acceptable according to the data or information obtained based on the collection. Testing a hypothesis also means developing the ability to think rationally. This means that the

truth of the answer given is not only based on arguments but must be supported by data found and can be justified, f) Formulate Conclusions, Formulating conclusions is the process of describing findings obtained based on the results of hypothesis testing. To reach accurate conclusions, teachers should be able to show students which data is relevant.

Advantages and Disadvantages of the Inquiry Learning Learning Model

Of course, as a learning model that is an alternative to other models, the Inquiry Learning learning model has its own advantages and disadvantages. The advantages of the Inquiry learning strategy according to Ramadhany (2023:32-33) are stated as follows: Can form and develop (self-concept) in students, so that students can understand basic concepts and main ideas well, Helps in using memory and transferring to new learning process situations, Encourage students to think and work on their own initiative, be objective, honest and open, Encourage students to think initiatively and formulate their own hypotheses, Provides intrinsic satisfaction, The learning process situation becomes more stimulating, Can develop individual talents or skills, Give students freedom to study on their own, Can prevent students from traditional ways of learning, Can give students enough time so that they can assimilate and accommodate information.

Apart from having advantages, the Inquiry learning learning model also has several weaknesses. According to Ramadhany (2023:32-33) the weaknesses of the Inquiry learning learning model are as follows: Difficulty controlling students' activities and success, The Inquiry learning learning model is difficult to implement because it is formed by students' learning habits, Sometimes implementation requires a long time so that educators often find it difficult to adjust it to the specified time, As long as the criteria for learning success are determined by the participant's ability to master the subject matter, this learning model will be difficult for every educator to implement.

According to Juhdy (2022:128-129) the advantages and disadvantages of the Inquiry Learning learning model are: Emphasizes the balanced development of cognitive, affective and psychomotor aspects, so that learning is considered more meaningful, Provide space for students to learn according to their learning style, Considered in accordance with the development of modern learning psychology which considers learning to be a process of changing behavior thanks to experience, Can serve the needs of students who have above average abilities. This means that students who have good learning abilities will not be hampered by students who are weak in learning, Train students to study more actively on their own.

The shortcomings of the Inquiry learning model according to Juhdy (2022:128-129) are: It will be difficult to control student activities and success, Not all materials can be applied with this model, It is difficult to plan learning because it clashes with students' learning habits, Implementing it requires a long time, so it is difficult for teachers to adjust it to the specified time, Not all teachers can apply this model.

According to Prasetyo (2021:117-118) there are advantages and disadvantages to the Inquiry learning model, including: Advantages; a) It is a learning strategy that emphasizes the development of cognitive, affective and psychomotor aspects in a balanced manner so that learning with this strategy is considered more meaningful, b) Can provide space for students to learn according to their learning style, c) Is a strategy that is considered to be in accordance with the development of modern learning psychology which considers learning to be a process of changing behavior thanks to experience, d) Can serve the needs of students who have above average abilities, Disadvantages in the Inquiry learning model according to Prasetyo (2021:117-118) include: a) Learning with Inquiry requires high student intelligence. If students are less intelligent, their learning will be less effective, b) Requires changes in students' learning habits that accept information and teachers as they are, c) Teachers are required to change their general teaching habits as information givers to become facilitators, motivators and guides for students in learning, d) Because it is done in groups, there may be members who are less active, e) Inquiry learning is not suitable for children who are too young, for example elementary school, f) The way students learn in this method requires better teacher guidance, g) For classes with a large number of students, it will be very troublesome for the teacher, h) It takes a long time and the

results are less effective if this learning is applied in less supportive classroom situations, Learning will be less effective if the teacher does not control the class.

Understanding Quizizz Learning media

Learning media can clarify the presentation of messages and information so that it can expedite and improve learning processes and outcomes, learning media can also overcome space and time limitations, therefore we must utilize learning media such as quizizz learning media. According to Annisa (2021:3662) The Quizizz application is an application that supports learning, from creating materials, exercises and quizzes with attractive visuals. Making exercises or quizzes with visuals means that the teacher can add pictures to the questions. Adding pictures to the questions makes students understand the material better and makes it easier to answer them. In this quizizz application, students can also see the ranking they have achieved so that they can motivate students to achieve satisfactory learning results (Thowijah, 2022: 106).

According to Abdillah (2022:98) the Quizizz application can display the work results of each quiz participant in detail, online and can be downloaded in the form of an excel file. Quizizz also allows students to compete with each other and motivates them to learn. Students take quizzes at the same time as class and see their live rankings on the leaderboard. Using this application helps stimulate interest and improve students' concentration.

Based on the opinions of the experts above, it can be concluded that Quizizz learning media is a formative assessment tool in the form of a multiplayer web that functions on all devices (smartphones, computers, tablets) in various operating systems, and applications that support learning, from creating materials, practicing , and quizzes with interesting visuals. Making exercises or quizzes with visuals means that the teacher can add pictures to the questions.

Benefits of Quizizz Learning Media

It is hoped that the use of the Quizizz application can become an alternative learning media which prioritizes creativity, time management and independent evaluation of students. In the opinion of Salsabila (2022), game-based learning has good potential to be used as an effective learning medium because it can stimulate virtual and verbal components. So the Quizizz application game can help encourage students' learning motivation and improve their learning outcomes.

According to Anggraini (2020), the benefits of the Quizizz application for class III students at SDN Kebayoran Lama Utara 07 Pagi make students interested in the learning process, foster students' enthusiasm for working on questions, and increase learning resources. The use of the quizizz application is also able to measure students' high-level thinking abilities (HOTS) Larasati, (2023) so that even though the assessment is carried out remotely and the teacher cannot supervise the students in working on the questions, the teacher can still ensure that the students are working on the questions with their own abilities.

The benefits of using interactive learning media Quizizz have a positive impact on teachers and students. It is easier for teachers to use Quizizz from the large amount of material that already exists in the application, in delivering learning material, conditioning students in class, and increasing student motivation in learning. For students, in the Quizizz application there are several features that increase student motivation so that it is considered an interesting learning medium, because it provides a new atmosphere, making it easier for students to understand learning material (Hidayati, 2021).

Based on the opinions of the experts above, it can be concluded that from the several benefits described above, there are still many other benefits related to the quizizz application in learning media. It is hoped that efforts to use the Quizizz application can become an alternative learning medium, which prioritizes creativity in time management, as well as independent evaluation of students. By using the quizizz application as a learning medium, education in Indonesia can be quite calm in carrying out evaluations, as has been explained. In the quizizz application, teachers can carry out assessments or evaluations more precisely. Utilizing the Quizizz application as an effective learning evaluation medium can be achieved if teachers pay attention to

the needs, shortcomings and differences of students. The quizizz application helps maintain the learning evaluation or assessment process.

Advantages and Disadvantages of the Quizizz Application

The Quizizz application as a learning medium is considered fun because it uses creative elements such as games, avatars in the teaching and learning process, this makes students interested and enthusiastic. The Quizizz application certainly has several advantages which can certainly support the success of the learning process. The advantages of the Quizizz application according to Salsabila, et al (2020:170) are stated as follows: For teachers/educators, it makes it easier to create questions, When students answer a question or quiz correctly, after that it will appear how many points they got in one question, and what rank they got in answering the quiz, If a student answers the quiz incorrectly, the correct answer will appear, for independent correction for the student, When you have finished taking the quiz, in the final or closing session, a review question will be displayed to review the answers you have chosen, When taking quizzes, each student gets different quiz questions, because they have been randomized automatically, thereby minimizing cheating.

METHOD

Research methods

Sugiyono (2018:1) explains that "Research methods are defined as scientific ways to obtain data with specific purposes and uses". The research method used is experimental research method. Where experimental research according to Sugiyono (2018:111) is "The experimental method is quantitative research used to determine the effect of independent variables (treatment) on dependent variables (results) under controlled conditions.

Data analysis technique

Normality test

The normality test is carried out to find out whether the data used in the research is normally distributed or not. To find out whether the data is normally distributed or not, researchers use the Liliefors test (Sudjana, 2018:466) with the following steps:

- Observations $X_1, X_2, \dots, X_n$ is made into standard numbers Z_1, Z_2, Z_n using the formula $Z_1 = (X_i - \bar{X})/S$
- For each of these standard numbers and using the standard normal distribution list, then calculate the probability $F(z_i) = P(Z \geq Z_i)$
- Next, calculate the proportions $Z_1, Z_2, \dots, Z_n$ which is smaller or equal to Z_i . If this proportion is expressed by $S(Z_i)$,
- Then $S(Z_i) = (\text{Number of } Z_1, Z_2, \dots, Z_n \text{ which is } \leq Z_i)/n$
- Calculate the difference $F(Z_i) - S(Z_i)$ then determine the absolute.

Take the largest absolute value (L_o) to accept or reject the hypothesis, then compare L_o with the critical value taken from the list, for a real level of $\alpha = 0.05$

With the criteria: If $L_{count} \leq L_{table}$ then the sample is not normally distributed

If $L_{count} \geq L_{table}$ then the sample is normally distributed

Correlation Test

To determine whether or not there is an influence between the independent variable and the dependent variable. The formula used is the product moment correlation formula as follows:

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{(n \sum X^2 - (\sum X)^2)(n \sum Y^2 - (\sum Y)^2)}} \dots\dots\dots (\text{Arikunto Suharsimi, 2014})$$

Information:

r_{xy} = Product moment correlation coefficient

N = total number of students

$\sum X$ = item score

$\sum Y$ = Total score of all students

$\sum X Y$ = The sum of the results of multiplying the score "X" and the score "Y"

It can be concluded that if $r_{count} \geq r_{table}$ then there is an influence between the independent and dependent variables. On the other hand, if $r_{count} \leq r_{table}$ then there is no influence between the independent variable and the dependent variable.

Hypothesis testing

To find out whether X has a significant (meaningful) relationship with variable Y, test the hypothesis using the t-test as follows:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \dots\dots\dots(\text{Sugiyono: 2018})$$

Information :

r = correlation coefficient

n = sample

The hypothesis is accepted, if $t_{count} \geq t_{table}$ and vice versa, if $t_{count} \leq t_{table}$ then the hypothesis is rejected. With an error rate of 5%.

RESULTS AND DISCUSSION

Class IV Pretest Results

In class IV, students first use initial actions or pretests before starting learning to determine students' abilities. The results of the pretest carried out by students show that the students' learning outcomes in Theme 9 The Richness of My Country, Subtheme 2 Utilization of Natural Wealth in Indonesia is still considered sufficient. This can be seen from the students' pretest scores in table 2.

Table 2. Frequency Distribution of Experimental Data Pre Test Inquiry Learning Model

X	F	FX	X= x-X	X ²	FX ²
40	1	40	-21,4	457,96	457,96
42	1	42	-19,4	376,36	376,36
44	1	44	-17,4	302,76	302,76
45	2	90	-16,4	268,96	537,92
48	1	48	-13,4	179,56	179,56
52	1	52	-9,4	88,36	88,36
56	2	112	-5,4	29,16	58,32
58	3	174	-3,4	11,56	34,68
60	2	120	-1,4	1,96	3,92
64	1	64	2,6	6,76	9,73
65	3	195	3,6	12,96	38,88
66	2	132	4,6	21,16	42,32
68	3	204	6,6	43,56	130,68
72	1	72	10,6	112,36	112,36
76	2	152	14,6	213,16	426,32
78	1	78	16,6	275,56	275,56
80	1	80	18,6	354,96	354,96
82	1	82	20,6	424,36	424,36
$\sum F = 29$		$\sum FX = 1781$		$\sum X^2 = 3181,48$	$\sum FX^2 = 3855,01$

Based on the frequency distribution table above, the highest score for the Pre Test in class IV was 82 and the lowest score was 40. The average (Mean) was obtained at 61.4 and the standard deviation was 11.52.

There were 8 students who got scores above the average with a percentage of 27.6% and 11 students who got scores below the average with a percentage of 72.4%. The highest percentage was 72.4% and the lowest percentage was 27.6%. The following is a table of students' Pre Test histogram frequencies.

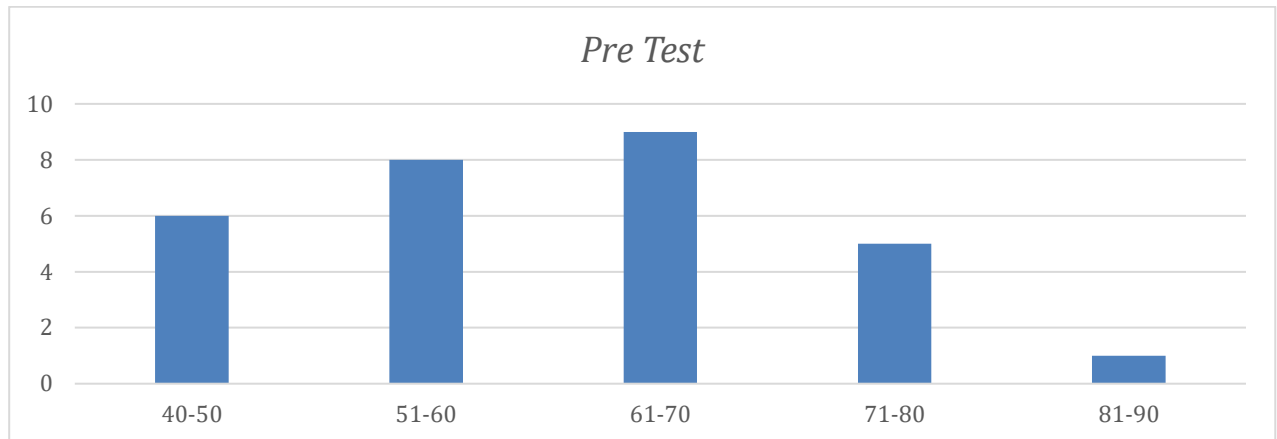


Figure 1. Frequency Distribution Diagram of Pre Test Scores

Based on the frequency histogram above, it can be seen that the Pre-Test scores of students in 6 respondents obtained a score of around 40-50 amounting to 20.7%, 8 respondents obtained a score of around 51-60 amounting to 27.6%, 9 respondents obtained a score of around 61-70 amounting to 31.1%, 5 respondents scored around 71-80 amounting to 17.2%, 1 respondent obtained a score around 81-90 amounting to 3.4%,

Class IV Post Test Results

After all lessons have been completed, they are taught using the Inquiry Learning learning model. Next, the researcher gave a Post Test which aimed to determine the level of success of the actions given. The results of the students' post test scores can be seen in table 3 below.

Table 3. Post Test Frequency Distribution

X	F	XF	X-x-X	X ²	FX ²
63	1	63	-18,1	327,61	327,61
69	2	138	-12,1	146,41	292,82
72	1	72	-9,1	82,81	82,81
73	3	219	-8,1	65,61	196,83
77	3	231	-4,1	16,81	50,43
80	6	480	-1,1	1,21	7,26
83	3	249	1,9	3,61	10,83
87	4	348	5,9	34,81	139,24
90	3	270	8,9	79,21	237,63
93	2	186	11,9	141,61	283,22
97	1	97	15,9	252,81	252,81
$\sum F = 29$		$\sum FX = 2353$		$\sum X^2 = 1152,51$	$\sum FX^2 = 1881,49$

Based on the frequency distribution table of Post-Test scores in class IV, the highest score was 97 and the lowest score was 63. The average score was 81.1 and the standard deviation was 8.05. There were 21 students who got scores above the average with a percentage of 72.4% and students who got the right score on average were 8 people with a percentage of 27.6%. The following is a histogram frequency table of students' Post Test scores.

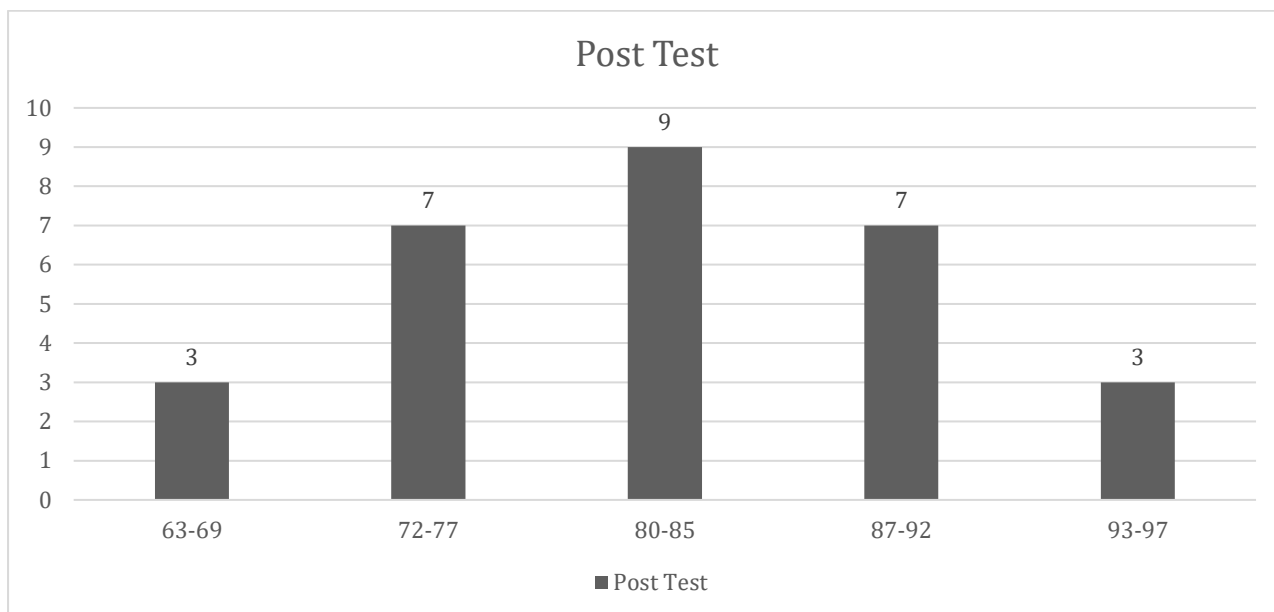


Figure 2. Frequency Diagram Distribution of Post-Test Scores

Based on the data above, it can be seen that the post-test scores of students are 3 respondents who got a score of around 63-69, which is 10.3%, 7 respondents who got a score of around 72-77, which is 24.1%, 9 respondents who got a score of around 80-85, amounting to 31.2%, 7 respondents got a score of around 87-92 amounting to 24.1%, 3 respondents got a score of around 10.3%.

The results of the Post-Test scores show an increase in the learning completeness of class IV students. This result can be seen from the Post Test score which is higher than the Pre Test score. Where the average post test score is 81.1 while the average pre test score is 61.4.

Inquiry Learning Model Questionnaire Results

At the end of the lesson, after being given a Post Test, they will then give an Inquiry Learning model questionnaire which aims to see the teacher's activities while teaching using the Inquiry Learning learning model. The results of the students' questionnaire scores can be seen in table 4 below.

Table 4. Frequency Distribution of Questionnaire Results

X	F	XF	X-x-X	X ²	FX ²
80	7	560	-8,41	70,72	495,04
83	1	83	-5,41	29,26	29,26
85	2	170	-3,41	11,62	23,24
86	3	258	-2,41	5,80	17,4
90	8	720	1,59	2,52	20,16
95	4	380	6,59	43,42	173,68
98	3	294	9,59	91,96	275,88
99	1	99	10,59	112,14	112,14
$\Sigma F = 29$		$\Sigma FX = 2564$		$\Sigma X^2 = 367,44$	$\Sigma FX^2 = 1146,8$

From the table above, it can be seen that the student learning model questionnaire scores are: 8 respondents got a score of around 80-83, 27.6%, 5 respondents got a score of around 85-88, 17.2%, 8

respondents got a score of around 90- 93 around 27.6%, 8 respondents scored around 95-99 amounting to 27.6%. For more details, see the diagram below.

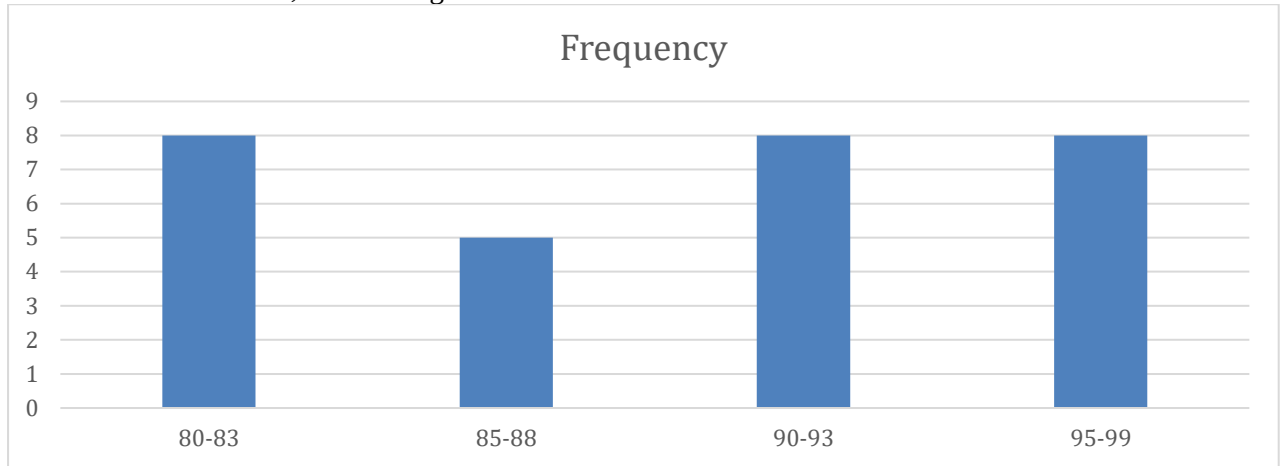


Figure 4. Frequency Distribution Diagram of Questionnaire Scores Testing Requirements Analysis
Normality test

The normality test was carried out to determine whether the data from the Post Test on the learning outcomes of class IV students were normally distributed or not. The data tested is the Post Test after taking action and treatment using the Inquiry Learning model. Below are the results of normality calculations using SPSS Version 22.

Table 5. SPSS Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Nilai	.108	29	.200*	.979	29	.815

Decision making with a significance of 5% is as follows; Significant value (sig) ≥ 0.05 normal distribution, Significant value (sig) ≤ 0.05 non-normal distribution

The significance rate value used by the research is a significance rate of 5% or 0.05. Based on the Lilifors (Kolmogorov-Sminov) test for decision making with a significant rate (sig) ≥ 0.05 , namely $0.200 \geq 0.05$, the data is said to be normally distributed. To support the statement above, the researcher presents the histogram results on normality below.

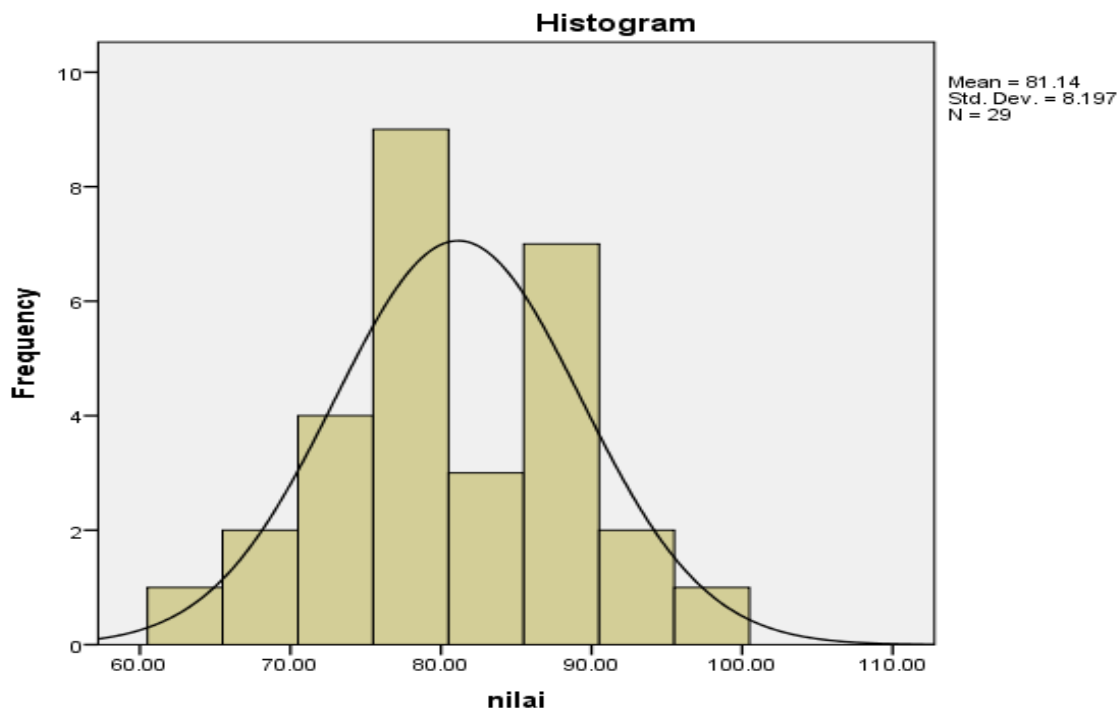


Figure 5. Normality Test Frequency Histogram

Correlation Coefficient Test

The correlation coefficient test is used to determine whether there is an influence between the independent variable (X) and the dependent variable (Y). The condition for testing the correlation coefficient is to look at $r_{count} \geq r_{table}$ using the Product Moment correlation coefficient formula.

Table 6. Correlation Coefficient Test

		Model_inquiry	Learning Outcomes
Model_inquiry	Pearson Correlation	1	.816**
	Sig. (2-tailed)		.000
	N	29	29
Learning Outcomes	Pearson Correlation	.816**	1
	Sig. (2-tailed)	.000	
	N	29	29

The table above shows that the correlation coefficient value is 0.816. If $r_{count} \geq r_{table}$ then $0.816 \geq 0.367$. This means that there is a very strong correlation influence between the Inquiry Learning learning model on the learning outcomes of class IV students, namely 81.6% and 18.4% influenced by other factors not examined in this research.

Table 7. Correlation Interpretation

Coefficient Interval	Relationship Level
0,00-0,199	Very low
0,20-0,399	Low
0,40-0,599	Currently

0,60-0,799
0,80-1,000

Strong
Very strong

Hypothesis test

After the data is declared to be normally distributed and the samples are from the same population, then hypothesis testing can be carried out using the "t test". The statistic used to test the research hypothesis is the t-test. The hypothesis proposed is

Ha: There is a significant positive influence between the Inquiry Learning learning model on student learning outcomes.

Ho: There is no significant influence between the Inquiry Learning learning model on student learning outcomes.

The hypothesis is accepted (Ha) if $t_{count} \geq t_{table}$ and rejected (Ho) if $t_{count} \leq t_{table}$. The results of the t test hypothesis calculation can be seen in the following table:

Table 8. Hypothesis Testing

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-11.231	12.637		-.889	.382
Model_Inquiry	1.045	.143	.816	7.328	.000

The t-test calculation result from SPSS Version 22 was 7,328. To find out whether the hypothesis is accepted or rejected, $t_{count} \geq t_{table}$, namely $7.328 \geq 2.045$, which means there is an influence of the Inquiry Learning model on student learning outcomes.

Discussion of Research Results

This research was conducted at SD Negeri 064022 Medan Tuntungan. Researchers used tests and questionnaires as data collection tools with a total research sample of 29 students. The sampling in this research was a probability sample. The aim of conducting research is to determine the effect of the Inquiry Learning model based on the Quizizz application on the learning outcomes of class IV students at SD Negeri 064022 Medan Tuntungan.

Validity Test, The validity test results of the 50 question grids contained 30 valid questions. And 20 questions were invalid so the research instrument used was 30 questions. Determining whether a question grid is valid or invalid is based on the r table. if $r_{count} > r_{table}$ then the question is declared valid. but if $r_{count} < r_{table}$ then the question is invalid. Where in this study the number of samples was 29 respondents (students) so that the r table with $n = 29$ was 0.367.

Reliability Test, The results of the reliability test of the questions that have been carried out, the reliability index for the question instrument reached 0.836, which is in the very strong category. The results of the questionnaire reliability test which had been carried out, the questionnaire instrument reliability index reached 0.912, which was in the very strong category.

The results of the Pre Test implementation on students with the Pre Test score for class IV obtained the highest score of 82 and the lowest score of 40 with an average score of 61.4 (poor category) and a standard deviation of 11.52. The students who obtained results above the average were 6 students with a percentage of 20.7%, while the students who obtained below the average were 23 students with a percentage of 72.3%.

Post Test, The results of implementing the Posttest on students, the average score for posttest learning outcomes was 81.1 (very good). The Class IV Post Test score obtained the highest score of 97 and the lowest score of 63 with a standard deviation of 8.05. There were 21 students who got results above the average with a percentage of 72.4%, students who got scores below the average were 8 students with a percentage of 27.6%.

Normality test, The data normality test was carried out using the SPSS Version 22 test using the Liliefors test. The condition for data having a normal and abnormal distribution is that if the significant value (sig) is > 0.05 then the data is declared to be normally distributed, and if the significant value (sig) is < 0.05 then the data is declared to be abnormally distributed. The significance rate value used by this research is a significance rate of 5% or 0.05. Based on the Liliefors (Kolmogorov-Sminov) test, decision making with a significant rate (sig) > 0.05 , namely $0.200 > 0.05$, means the data is said to be normally distributed.

Hypothesis testing, The results of the t test in this research were used to answer the problem formulation "Is there an influence of the Inquiry Learning model based on the Quizizz application on student learning outcomes in Theme 9 Sub-theme 2 Learning 1 class IV SD Negeri 064022 Medan Tuntungan for the 2023/2024 Academic Year?". To find out whether the hypothesis is accepted or rejected, $t_{count} \geq t_{table}$ then the hypothesis is accepted, and vice versa, if $t_{count} \leq t_{table}$ then the hypothesis is rejected, with an error rate of 5%. The results of the t test calculation mean that $t_{count} \geq t_{table}$ is $7.328 \geq 2.045$, which means that there is an influence of the Inquiry Learning model on the learning outcomes of class IV students at SD Negeri 064022 Medan Tuntungan.

Correlation Coefficient Test, Based on the results of the calculations carried out, the correlation coefficient (R_{xy}) or $r_{count} = 0.816$ with a significance level of 5% with the number of respondents $n = 29$ students, so that $r_{table} = 0.367$. The results of these calculations show that $r_{count} \geq r_{table}$. So $0.816 \geq 0.367$ means that there is a very strong correlation effect between the Inquiry Learning learning model on the learning outcomes of class IV students at SD Negeri 064022 Medan Tuntungan, namely 81.6% and 18.4% is influenced by other factors not studied in this research.

What Students Experience During Direct Research, Based on the results of the learning test, it can be seen that student learning outcomes from the Pretest score to the Post Test score have increased, this indicates that the Inquiry Learning model is very suitable to be applied in this learning. Students can be more responsible and serious in every learning activity. Students are required to always be active and involved in activities, from the results of learning Inquiry Learning is able to explore all students' abilities so that they are more optimal, the results can be distinguished that students who complete experience significant improvement with what is expected, namely in accordance with the learning completeness that has been determined.

The student response after implementing the Inquiry Learning model was positive. In the teaching and learning process in groups, students feel happy and enthusiastic about learning activities. In learning, students also feel happy to be able to work together to help each other with their friends in learning so that they can increase their self-confidence. Using the Quizizz application in elementary school children's learning has many advantages that can increase student motivation, involvement and understanding. However, there are also some drawbacks to be aware of, such as reliance on technology and lack of social interaction. Therefore, it is important for teachers to balance the use of technology with traditional learning methods so that learning can take place effectively and comprehensively.

CONCLUSIONS AND RECOMMENDATION

Based on the results of research that has been carried out based on all discussions and results of data analysis carried out, it can be concluded that: Results of student questionnaire scores using the Inquiry Learning model based on the Quizizz application on the learning outcomes of class IV students at SD Negeri 064022 Medan Tuntungan for the 2023/2024 learning year. That the average score on the Inquiry Learning learning model questionnaire is 88.41. The lowest questionnaire score is 80 and the highest student questionnaire score is 99, The results of the Post Test scores for student learning using the Inquiry Learning model based on the Quizizz application on theme 9 Kayanya Negeriku class IV SD Negeri 064022 Medan Tuntungan show an increase in students' learning completeness. This result can be seen from the Post-Test score which is higher than the Pre Test score. This can be seen from the students' average Pre-Test score of 61.4 which is in the poor category, while the average Post-Test score is 81.1 which is in the good category.

Based on the research objectives with the hypothesis, namely $t_{count} \geq t_{table}$ where the results are $7.328 \geq 2.045$ with a significant level ($\alpha = 0.05$) with this it can be proven that the alternative hypothesis (H_a) is accepted, namely that there is a significant positive influence from the use of the application-based Inquiry Learning learning model Quizizz on the learning outcomes of class IV students at SD Negeri 064022 Medan Tuntungan for the 2023/2024 academic year. This proves that the Inquiry Learning learning model is very effective in thematic learning.

Based on the results of this research, the author would like to convey the following suggestions: With research on the influence of the Inquiry Learning model based on the Quizizz application on student learning outcomes, it is hoped that the Inquiry Learning learning model can be used as an alternative to improve student learning outcomes for the better. In the learning process, it is hoped that students will be more active in the learning process, because students participating in learning activities will help students to better understand the material provided by the teacher so that it can help students to improve learning outcomes. For the school to further motivate class teachers to implement the use of learning models in every learning process. Considering that this research uses quantitative descriptive data analysis and the research subjects are 29 students in one class, it is hoped that other researchers who will carry out research with relatively similar problems can continue this research to obtain more significant findings.

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