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The Effect of Audio Visual-Based Inquiry Learning Model on Elementary Student Learning Outcomes in Science and Technology Subjects in Class IV

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ABSTRACT

The present study discusses the effect of the Audio Visual Media-based Inquiry learning model on the grade IV students' learning outcomes at UPT SD Negeri 068008 Damar Medan Tuntungan District in Medan in the academic year 2023/2024. The research method used is an experimental method with quantitative research. The number of research samples is 25 students based on the boring sampling technique (total sampling). The data on the Inquiry learning model was obtained from questionnaires distributed to students. Data on student learning outcomes were obtained from the students' Pretest and Post-test scores in the 2023/2024 academic year. The students' learning outcomes showed that the average score of the Pretest grade IV students was 65.12 while the Post-test average score was 88.96. Furthermore, the results of hypothesis testing showed 6,944 and 2,060. It is evident that Ho was rejected and Ha was accepted. Through the t-test, it can be concluded that there is a significant positive effect between the t_{count} t_{table} audio-visual media-based inquiry learning model on class IV student learning outcomes in the science and technology subject UPT SD Negeri 068008 Medan Tuntungan in the academic year 2023/2024.

Keywords*: *audio-visual media, inquiry learning model, student learning outcomes, science and technology

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INTRODUCTION

Current world developments have a huge impact on the world of education. In connection with the changes that occur, education is expected to be able to prepare students to increase the knowledge they have. However, education must be planned so that it can realize or achieve a good and maximum educational goal so that students are able to face and be ready for the progress of today's times. With education, it will be possible to increase human resources in the future so that quality people can be created. According to Sigalingging (2022:750) "Education is a conscious and planned effort to create a learning atmosphere and learning process so that students can be active in developing their potential to gain religious spiritual strength, self-control, personality, intelligence, noble morals and skills. which is needed for himself, society, nation and state." Based on the explanation stated above, it can be seen that education as long as we live will always need education that can be a provision for life in the future.

According to Rusman (2020:67) "learning outcomes can be seen from changes in perception and behavior, including improvements in behavior." Good learning outcomes must of course meet the criteria for completeness as the results to be achieved, which can be useful in measuring the level of students' understanding in the learning provided. Apart from that, according to Allutfia (2023:328) Natural and Social Sciences (IPAS) "is a science that discusses living things and inanimate objects and discusses human life as individual creatures and social creatures. IPAS has the task of creating Pancasila Student Profiles. Not only that, but it can also invite students to discover how nature works and relates to humans.

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One thing that students have is cognitive ability, where cognitive refers to students' ability to think. In the teaching and learning process students will be trained to become accustomed to processing information and thinking critically. From this cognitive ability, teachers can find out the causes of students getting low learning outcomes. Low learning outcomes are not always due to low cognitive abilities but also due to other factors, such as disturbances experienced during the learning process. In the learning process, teachers are expected to be creative and innovative so that learning becomes active and fun for students. Teachers are encouraged to understand the situation in the classroom during the teaching and learning process. As a teacher, you are required to be able to determine the appropriate learning model that is appropriate to the learning material. In using the learning model, the learning process will be more active between teachers and students. The learning model quite influences the learning situation and outcomes.

Therefore, teachers need learning models and media as a means of learning activities that function in making learning situations more effective. Audio visual media is one of the media that can be used when carrying out learning in class. According to Windasari (2019:4), "audio visual is a type of media which, apart from containing sound elements, also contains image elements that can be seen." The role of audio-visual media will be more visible if teachers know how to use it well in learning. Having audio-visual media during learning activities can create attraction and interest in students' learning. Based on the results of interviews with class IV homeroom teachers at the UPT SD Negeri 068008 Medan Tuntungan school, it is known that students' science and science learning abilities are still relatively low, this can be seen from the learning results that students have obtained. This happened because the teaching and learning process was still monotonous and less than optimal. The infrequent use of learning models has an influence on the learning process and learning outcomes are not optimal. The lack of learning outcomes is known from the students' learning outcomes scores which are still below the Learning Goal Achievement Criteria (KKTP).

Table 1. Daily Science Test Scores for Class IV Students at UPT SD Negeri 068008 Medan Tuntungan for the 2023/2024 Academic Year

Number	KKTP	Mark	The number of students	Presentation
1	78	<	9	(9/25) x 100 = 36 %
2	78	>	16	(16/25) x 100 = 64 %

Data Source: Class IV homeroom teacher at State Elementary School 068008 Medan Tuntungan

Based on the table above, information is obtained that in class IV as many as 36% of students got grades above the KKTP and 64% of students got grades below the KKTP. In class IV at UPT SD Negeri 068008 Medan Tuntungan, only 36% of students were included in the category of complete learning in class IV, so it can be concluded that the learning achievement of students in class IV at UPT SD Negeri 068008 Medan Tuntungan in science subjects is still relatively low. With this, during learning activities the teacher's task is very important. In order to develop student learning outcomes, teachers as educators must be able to strive for an effective and varied learning process. From various types of learning models, educators can determine a model that suits the material in learning activities. So that by having a learning model during the teaching and learning process activities, students can participate in learning in class and outside the classroom well and have fun.

Based on these problems, researchers will apply the inquiry learning model. According to Sigalingging (2022:759) "The inquiry learning model is a strategy that requires students to discover something and know how to solve problems in scientific research. The main goal is to develop students' attitudes and skills that enable them to become independent problem solvers." Through the inquiry learning model, students are given the freedom to think in their imagination so that students can be active during ongoing learning activities.

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LITERATURE REVIEW

The Nature of the Guided Inquiry Learning Model

In the process of teaching and learning activities, it is very important to use a learning model in an approach. In this developing era, many different learning models have been developed so that they can be used by educators for teaching. Of the various models, one that can be used is the inquiry learning model. According to Amijaya (2018:95) "The guided inquiry learning model is a learning model that places students as learning subjects, which means that every student is encouraged to be actively involved in learning activities. Asni (2020:19) states that "The guided inquiry learning model is a learning model that actively involves students in carrying out an experiment given by the teacher, so that students have an active role in each experimental activity. "If students are actively involved in teaching and learning activities, student learning outcomes can improve."

Meanwhile, according to Lovisia (2018:3) "The guided inquiry learning model is a model that guides students in thinking and finding scientific attitudes." According to Handayani (2020:26) "The guided inquiry learning model is a learning model that is centered on students being able to find their own answers to the questions given so that in its implementation the teacher is only a facilitator." The existence of an inquiry learning model can have an influence on improving student learning outcomes significantly. In contrast to the opinion of Yudhanegara (2018:74) "The guided inquiry learning model is a learning model used by teachers that involves students in learning through research activities which aim to find information with the help of the teacher." Guided inquiry learning is applied so that students are free to develop the concepts they learn. Students are given the opportunity to solve the problems they face individually or in groups, in class they are taught to interact socially with their peers to exchange information between groups. Based on the opinions of the experts above, it can be concluded that the meaning of the guided inquiry learning model is a learning model that can direct students to find out their knowledge independently by using a problem and then carrying out an investigation in order to obtain answers to each of these problems.

Steps to the Guided Inquiry Learning Model

Astriyandi (2021:14-15) suggests the steps of the guided inquiry learning model as follows: Orientation: Steps to foster a responsive learning atmosphere or climate, Formulating the problem: Formulating the problem is a step that will invite students to problems that contain puzzles. The problems presented are problems that make students think about finding ways to solve puzzles, Formulate a hypothesis: A hypothesis is a temporary response to the problem being investigated. Due to temporary responses, hypotheses need to be fact-tested, Collecting data: Collecting data is the collection of material data needed to test the hypothesis that has been proposed, Testing a hypothesis: Testing a hypothesis is a way of determining acceptable responses based on data or information obtained from data collection, Formulating conclusions: Formulating conclusions is a step in explaining the results that have been obtained through hypothesis testing. Meanwhile, according to Lovisia (2018:4), the steps of the guided inquiry model are: Students are given problems, Students observe the experiment that will be carried out, Students present the results in the form of writing or reports, Students present the results of the experiment in front of the class, Students make conclusions.

According to Asni (2020:19), there are several steps in the guided inquiry model: Orientation: The teacher conveys the material to be studied and the objectives of the material studied and the teacher also divides students into several groups, Formulating the problem: The teacher directs students to a problem and the students will formulate their own solution to the problem, Formulating hypotheses: The teacher gives students the opportunity to express their opinions regarding the answer to the problem given previously and the teacher guides students in determining hypotheses from several students that are relevant to the problem and prioritizing which hypothesis is the priority for investigation, Collecting data: The teacher gives students the opportunity to collect the information needed to test the hypothesis formulated together and work together with their respective group friends to exchange ideas to find answers to the problems that have been given,

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Formulating conclusions: The teacher gives each group the opportunity to convey the results of gathering information that has been obtained which is relevant to the hypothesis and is able to answer the problem given. Based on the opinions of the experts above, it can be concluded that there are several steps in the guided inquiry learning model which consist of: orientation, problem formulation, hypothesis formulation, data collection, hypothesis testing and conclusion formulation.

Advantages and Disadvantages of the Guided Inquiry Learning Model

Handayani (2020:26) states the advantages and disadvantages of the guided inquiry learning model: 1. Advantages; Students can develop language skills, Students can build their own understanding, Students have the freedom to conduct research, Students can increase learning motivation and develop learning strategies to solve problems, 2. Disadvantages; The learning process takes a long time, Guided inquiry often relies on students' math skills, students' language skills, independent learning and self-management skills, Active students may still not understand or recognize basic concepts, rules and principles, and students often have difficulty forming opinions, making hypotheses, creating experimental designs, and drawing conclusions, This model is difficult to plan learning because it collides with students' learning habits, Sometimes its implementation requires a lot of time which makes it difficult for educators to adjust it to the specified time, If the criteria for learning success are determined by students' ability to master learning material, then this model is difficult for teachers to implement.

Amijaya (2018:96) stated the advantages and disadvantages of the guided inquiry learning model: 1. Advantages; Learning that emphasizes the development of cognitive, affective and psychomotor aspects in a balanced manner, so that learning through this strategy is considered more meaningful, Provide space for students to learn according to their learning style, Students who have good learning abilities will not be hampered by students who are weak in learning, 2. Weakness, During the learning process, educators find it difficult to control the activities and success of students if the class being taught has a large number of students. Each student has different characteristics, so not all students are able to accept the learning process.

According to Yudhanegara (2018:74-75) the advantages and disadvantages of the guided inquiry learning model are: 1. Excellence; Helping students develop or increase the supply and mastery of students' cognitive skills and processes, The knowledge obtained is very solid, in the sense of deepening the meaning of reference and transfer, Arouse passion in students, Give students the opportunity to move forward according to their own abilities, Causing students to direct their own way of learning, so that they feel more involved and self-motivated to learn, Helps strengthen students' personalities by increasing students' self-confidence, This method is student-centered so that the teacher is only a learning friend, 2. Weakness; Difficult to control student activities and success, It is difficult to plan learning, because it clashes with students' learning habits, It takes a long time, so it is difficult for teachers to adjust it to the specified time, It is difficult for every teacher to implement, because the criteria for learning success are determined by the student's ability to master the subject matter. Based on the opinions of the experts above, it can be concluded that the advantages of the guided inquiry learning model are that it focuses more on students, focuses on balanced cognitive, affective and psychomotor development, and trains students to discover new knowledge on their own. Meanwhile, the weakness of the guided inquiry model is that this model will take quite a long time so that if there are students who are less active they can experience difficulties so that they will be left behind by the other participants.

The Nature of Learning Media and Audio Visual Media

During the learning process, one of the things teachers can do is use media to support the delivery of the material being taught. Audio visual media is one media that can increase interest in learning and help solve problems in class. According to Windasari (2019:4) "Audio-visual media is a type of media that apart from containing sound elements also contains image elements that can be seen." Meanwhile, according to Fadillah (2020:4) "Audio visual media is media that can be used in learning activities by involving hearing and sight at the same time in one process or activity". Syafira (2022:28) "Audio-visual media is a combination of audio

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and visual or listening media. "The teacher does not always act as a material presenter, but the material presenter can be replaced by audio-visual media so the teacher's role can shift to become a learning facilitator, namely making it easier for students to learn." Meanwhile, according to Siswanto (2022:526) "Audio-visual media is a learning resource tool to clarify the presentation of messages, using a combination of sound and images which aims to condition student participation and activeness in following lessons."

Meanwhile, according to Nugraheni (2017:121) "Audio-visual media is a combination of audio-visual or what is usually called visual-hearing media." When the teaching and learning process uses audio-visual media, it will be more interesting than just using audio media or just using visual media. If the learning media used by the teacher is interesting, it can motivate students to be more enthusiastic so that students participate in learning. Based on the opinions of the experts above, it can be concluded that audio visual media is a tool in the learning process that can help teachers and students, where audio visual media can show two elements at once, namely images and sound simultaneously so that learning objectives can be achieved during the process. teaching and learning is in progress.

Advantages and Disadvantages of Audio Visual Media

Each type of media definitely has advantages and disadvantages, the same thing is also found in audio-visual media. Windasari (2019:4) explains that audio visual media has advantages and disadvantages, namely: Excess; Clarify the presentation of the message so that it is not too verbalistic (in the form of words, written and spoken), Overcoming limitations of space, time and sensory power, such as: objects that are too large are replaced with reality, images or models, Audio visual media can play a role in tutorial learning. The disadvantages of audio visual media include: the sound is sometimes not clear, the implementation takes quite a long time and the cost is relatively more expensive.

Meanwhile, according to Siswanto (2022: 526), the advantages and disadvantages of audio visual media are: 1. Advantages; Classroom learning will be more innovative and interactive because audio-visual media can provide students with visual or auditory language so that the teaching and learning process becomes effective, Students feel very enthusiastic and motivated to learn because audio-visual media provides real experiences compared to audio or visual media, Increase students' understanding because students do not fantasize and it is easy for students to understand the material by hearing and seeing directly, Learning objectives can be achieved because audio-visual media can combine various types of visual and audio into learning materials that support each other, Pictures or videos can replace objects that are impossible to bring into the classroom, Flexible and easy storage of tools or media, Media can be used according to needs, for example video playback that can be repeated, sound volume that can be adjusted, and so on, 2. Weakness; Audio visual media requires a duration of work that tends to be quite short, this is because it combines two elements, namely audio and visual, Must be skilled and careful when working, The amount of funds used when working on audio visual media, Limited tools or devices will be difficult to manufacture, Images or sounds that are not used appropriately will make students feel doubtful in interpreting the material provided.

The opinion according to Nugraheni (2017:124) states the advantages and disadvantages of audio visual media, namely: a. Advantages of Audio Visual Media; Videos can be a complement to students' basic experiences, This video can describe the learning process accurately and can be watched repeatedly if necessary, Using videos will provide encouragement and motivation for students and instill attitudes and other affective aspects, Videos that have positive value will stimulate students' thinking in discussions, Videos can be seen and shown to all groups, both large and small groups, b. Weaknesses of Audio Visual Media; Procuring videos usually costs a lot of money and takes a lot of time, Not all students can receive information conveyed via video, Videos that have been presented cannot always fulfill the desires and learning objectives unless they are prepared and produced specifically to meet your own needs". Based on the opinions of the experts above, it can be concluded that audio visual media has advantages and disadvantages. The advantages are that it can clarify the delivery of material, and has a display that attracts students' attention, while the disadvantages are

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that the use of audio-visual media during learning requires hardware and requires an active role from educators during the ongoing learning process.

METHOD

Research methods

Research methods are the methods or steps that will be carried out in research. To obtain research objectives that are as expected, appropriate research is used. This research uses quantitative research with experimental methods. The type of experiment used in this research is Pre-Experimental Design, while the research design used in this experimental research is One Group Pretest-Posttest Design with the aim of showing that there is a pretest before treatment is given. "In this way, the results of the treatment can be known more accurately, because we can compare the situation before the treatment was given (Sugiyono 2021:114)".

Data Analysis Technique

Correlation Coefficient Test

This test is carried out to determine whether or not there is an influence between the independent variable (X) and the dependent variable (Y). By using the product moment correlation formula, namely:

$$rxy = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{(N\sum X^2 - (\sum X)^2 (N\sum Y^2 - (\sum Y)^2\}}}$$ (Arikunto, 2014)

Information:

rxy = Product moment correlation coefficient
N = total number of students
$\sum X$ = item score
$\sum Y$ = total score of all students
$\sum XY$ = the number of products between score X and score Y

It can be concluded that if $r$count ≥ $r$table then there is an influence between the independent variable and the dependent variable. On the other hand, if $r$count ≤ $r$table then there is no influence between the independent variable and the dependent variable.

Hypothesis testing

This test is carried out to find out whether X has a significant (meaningful) relationship with variable Y by testing the hypothesis using the t-test as follows:

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

Information:

r = correlation coefficient
and = sample The hypothesis is accepted, if tcount ≥ ttable and vice versa, if tcount ≤ ttable then the hypothesis is rejected, with an error rate of 5%.

RESULTS AND DISCUSSION

Class IV Pretest Results

In class IV, which consisted of 25 students, researchers conducted tests on the students. First, by conducting a pretest before learning and then conducting a posttest after providing learning using the Inquiry model. The following are the values from giving the pretest to students, which can be seen in table 2. below:

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Table 2. Frequency Distribution of Pretest Data

X	F	FX	X=x- $\bar{X}$	X²	FX²
48	3	144	-17.12	293.09	879.27
52	4	208	-13.12	172.13	688.52
56	5	280	-9.12	83.17	415.85
60	2	120	-5.12	26.21	52.42
72	4	288	6.88	47.33	189.32
80	3	240	14.88	221.41	664.23
84	2	168	18.88	356.45	712.9
88	1	88	22.88	523.49	523.49
92	1	92	26.88	722.53	722.53
	∑F= 25	**∑FX=1.628**		**∑X²=2.445,81**	**∑FX²=4.848,53**

Based on the data above, you can get an average of 65.12, standard deviation of 13.92, standard error of 2.84.

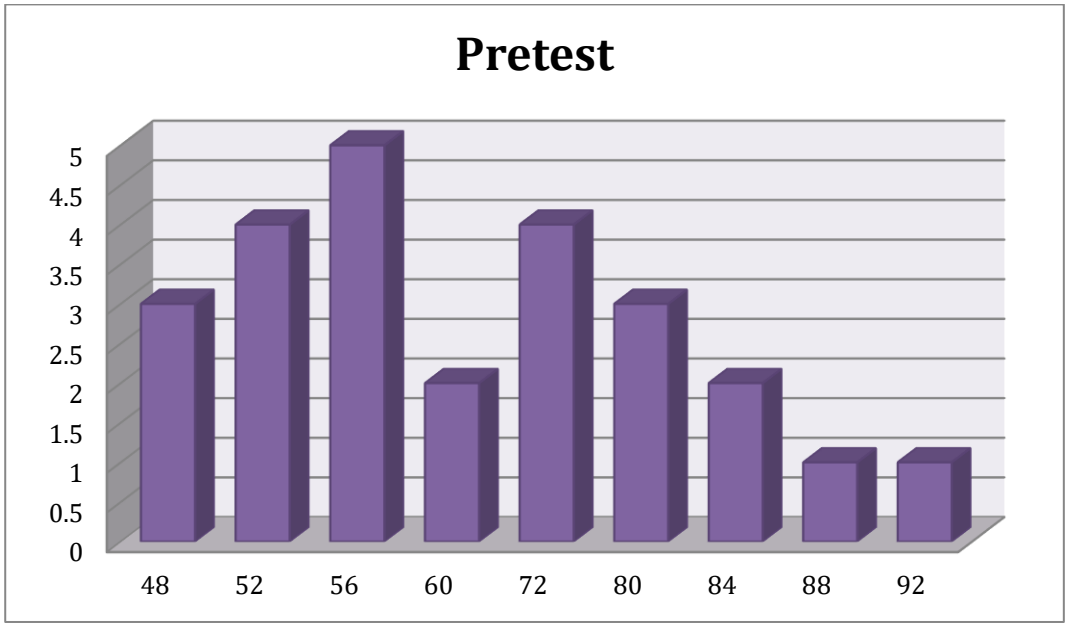

Figure 1. Histogram of Frequency Distribution of Pretest Scores

Based on the results of the pretest before giving treatment, the highest score was 92 and the lowest was 48. There were 18 students who scored below the KKTP with a percentage of 72% and 7 students who scored above the KKTP with a percentage of 28%. By seeing this condition, the researcher carried out a follow-up by providing treatment with Inquiry Model learning in this class.

Class IV Posttest Results

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

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Table 3. Posttest Frequency Distribution

X	F	FX	$X=x-\bar{X}$	X^2	FX^2
64	1	64	-24.96	623.00	623.00
72	1	72	-16.96	287.64	287.64
80	5	400	-8.96	80.28	401.4
84	1	84	-4.96	24.60	24.60
88	5	440	-0.96	0.92	4.6
92	3	276	3.04	9.24	27.72
96	3	288	7.04	49.56	148.68
100	6	600	11.04	121.88	731.28
	$\sum F = 25$	**$\sum FX = 2.224$**		**$\sum X^2 = 1.197,12$**	**$\sum FX^2 = 2.248,92$**

Based on the data above, it can be seen that the Average is 88.96, the Standard Deviation is 9.48, and the Standard Error is 1.93.

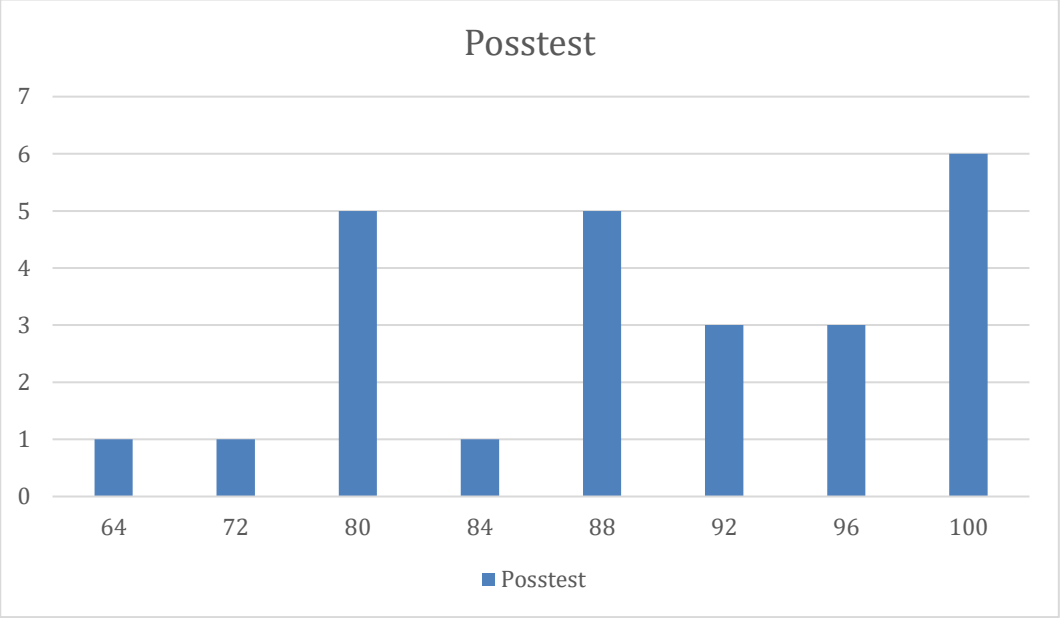

Figure 2. Histogram of Frequency Distribution of Posttest Scores

Based on the histogram of the frequency distribution of Class IV Posttest scores, the highest score was 100 and the lowest score was 64. The students who had scores below the KKTP were 2 students with a percentage of 8% and the students who got scores above the KKTP were 23 students with a percentage of 92 %. Based on this data, it is known that there was an increase in students' scores after being given treatment compared to before giving treatment. This increase can be seen in the diagram below:

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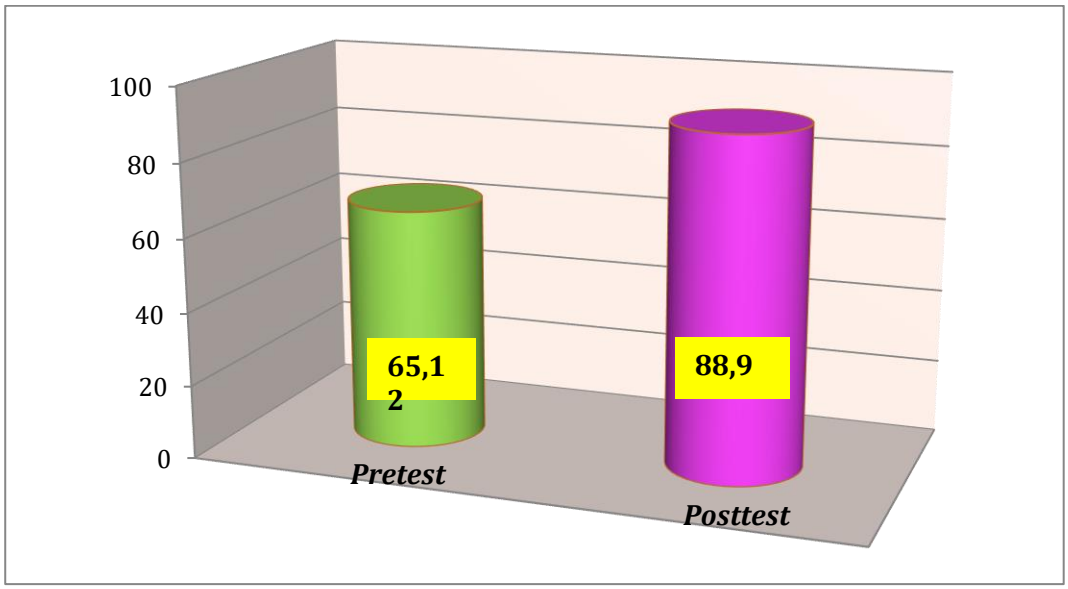

Figure 3. Diagram of Pretest and Posttest Average Scores

Based on the diagram above, it can be seen that the average posttest score for student learning outcomes is higher than the pretest score. Above, it can be seen that the average obtained during the Pretest was 65.12 in the sufficient category. Meanwhile, the average Posttest score after the treatment was obtained was a score of 88.96 in the very good category.

Results of the Inquiry Learning Model Questionnaire

At the end of the lesson, after being given a posttest, they will then give a questionnaire on the Inquiry learning model which aims to see the teacher's activities while using the inquiry model. The results of the student questionnaire scores can be seen in table 4. below:

Table 4. Frequency Distribution of Questionnaire Results

X	F	FX	$X=x-\bar{X}$	X^2	FX^2
72	1	72	-19.48	379.47	379.47
80	3	240	-11.48	131.80	395.4
83	2	166	-8.48	71.91	143.82
88	3	264	-3.48	12.11	36.33
90	2	180	-1.48	2.19	4.38
95	3	285	3.52	12.39	37.17
96	3	288	4.52	20.43	61.29
98	4	392	6.52	42.51	170.04
100	4	400	8.52	72.59	290.36
	$\sum F = 25$	**$\sum FX = 2.287$**		**$\sum X^2 = 791.93$**	**$\sum FX^2 = 1.518$**

Based on the data above, the average value (mean) is 91.48, standard deviation 7.79, standard error 1.59. From the calculation results obtained from the questionnaire data, the average result (mean) is 91.48, while the standard deviation is 7.79 and the standard error is 1.59.

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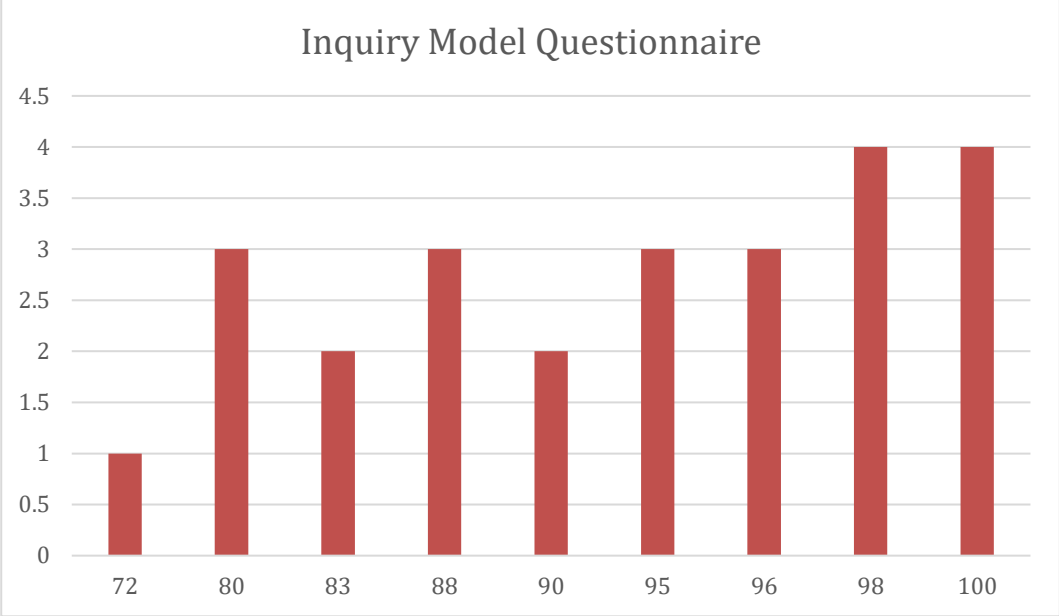

Figure 4. Histogram of Frequency Distribution of Questionnaire Scores

Based on the data in Figure 4., the histogram of the frequency distribution of questionnaire scores, class IV students obtained the highest questionnaire score of 100 and the lowest score of 72 with an average (mean) score of 91.48, the standard deviation was 7.79 and the standard error was 1.59.

Processing Techniques (Data Analysis)
Correlation Coefficient Test

The correlation coefficient value is used to determine whether there is an influence between the independent variable (x) on the variable (y), and the requirement for the correlation coefficient test is to look at the r count using the Product moment correlation formula.

Table 5. Correlation Coefficient Test

		Model Inkuiri	Learning outcomes
Model Inkuiri	Pearson Correlation	1	.823**
	Sig. (2-tailed)		0,000
	N	25	25
Learning outcomes	Pearson Correlation	.823**	1
	Sig. (2-tailed)	0,000	
	N	25	25

Table 6. Correlation Coefficient Interval

Coefficient Interval	Relationship Level
0,00-0,199	Very low
0,20-0,0399	Low
0,40-0,599	Currently
0,60-0,799	Strong
0,80-1,00	Very strong

Source Sugiyono (2016:184)

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Based on the table above, the 'r' Correlation (rxy) value of 0.823 is in the range of 0.80-1.00, so it can be concluded that there is an influence between the Inquiry learning model and student learning outcomes which has a strong relationship.

Hypothesis Test (t-test)

After the data is declared to have a normal contribution and the sample comes from the same or homogeneous population, then a hypothesis is proposed using the "t-test". The statistics used to test the assessment hypothesis is the t-test. The hypothesis proposed is,

Ho: There is no influence of the Inquiry Learning Model on the Learning Outcomes of Class IV Students at UPT SD Negeri 068008 Medan Tuntungan for the 2023/2024 Academic Year.

Ha: There is an influence of the Inquiry Learning Model on the Learning Outcomes of Class IV Students at UPT SD Negeri 068008 Medan Tuntungan for the 2023/2023 Academic Year.

The t-test criteria can be said to be significant if they are obtained to determine whether there is an influence on learning outcomes. Hypothesis testing using the t-test is carried out by comparing whether it is accepted (Ha) if tcount ≥ ttable and rejected (Ho) if tcount ≤ ttable. The t-test calculation is carried out using a manual formula and using SPSS Version 22. The following is the t-test calculation using the Product moment formula, as follows:

Table 7. Hypothesis Test (t-test)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-2,655	13,240		-0,201	0,843
	Model Inkuiri	1,001	0,144	0,823	6,944	0,000

Based on the calculation of the hypothesis test (t-test) with SPSS Version 22, it can be seen that the standard error is 0.144, beta is 0.823, the t-test result is 6,944. From the research results, the hypothesis test (t-test) obtained a significant value of 0.843 > 0.05. The t-test test results of 6,944 can be seen from the value 6,944 ≥ 2,060, which means that there is an influence of the Inquiry Model on student learning outcomes. This shows that the Inquiry Model has a significant positive influence, so Ha is accepted, namely that there is an influence of the Inquiry Model (x) on student learning outcomes (y).

Discussion of Findings

If observed from the variable coefficients, this research can state that the Inquiry Model variables are higher than students who receive conventional learning. The analysis results obtained provide an illustration that the Inquiry Model has an influence on student learning outcomes. Validity Test, The results of the validity test from 50 question grids contained 25 valid questions. And 25 questions were invalid so the research instrument used was 25 questions. determining valid and invalid rcount ≥ rtable then the question is declared valid. But if rcount ≤ rtable then the question is invalid. Where in this study the number of samples was 25 respondents (students) so that the r table with n = 25 was 0.396.

Reliability Test, The results of the reliability test of the questions that have been carried out, the reliability index for the question instrument reaches 0.885, 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 0.855, which was in the very strong category. Pretest, the results of the Pretest implementation for class IV Pretest students obtained the highest score of 92 and the lowest score of 48 with an average (mean) of 65.12 (poor category) and a standard deviation of 13.92. The students who obtained results above the average were 7 students with a percentage of 28%, while the students who obtained below the average were 18 students with a percentage of 72%.

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Posttest, the results of implementing the Posttest for students, the average score for the posttest learning results is 88.96 (Very Good). The Class IV Posttest score obtained the highest score of 100 and the lowest score of 64 with a standard deviation of 9.48. There were 23 students who got results above the average with a percentage of 92%, students who got scores below the average were 2 students with a percentage of 8%. Questionnaire, The average score of the questionnaire given to students reached 91.48 (very good).

Normality Test, Data normality test was carried out using the SPSS Version 22 test using the Liliefors test. The condition for normally and abnormally distributed data 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 researcher is a significance rate of 5% or 0.05. Based on the Liliefors (Shapiro-Wilk) test for decision making with a significant rate (sig) ≤ 0.05, namely 0.028 ≤ 0.1726, the data is said to be normally distributed. Correlation Coefficient Test, Based on the results of the calculations, the correlation coefficient (Rxy) or rcount = 0.823 with a significance level of 5% with the number of respondents = 25 students, so that rtable = 0.396. The results of these calculations show that rcount ≥ rtable. So 0.823 ≥ 0.396 means that there is a very strong correlation influence between the Inquiry learning model on the learning outcomes of class IV UPT SD Negeri 068008 Medan Tuntungan students.

Hypothesis Testing: The results of the t-test in this study were used to answer the problem formulation "Is there an influence of the inquiry learning model based on audio-visual media on student learning outcomes in science and science subjects for class IV UPT SD Negeri 068008 Medan Tuntungan?". To find out whether the hypothesis is accepted or rejected, tcount ≥ ttable then the hypothesis is accepted, and vice versa if tcount ≤ ttable then the hypothesis is rejected, with an error rate of 5%. The results of the t-test calculation show that tcount ≥ ttable is 6.944 ≥ 0.060, which means that there is an influence of the Inquiry model on the learning outcomes of class IV students at UPT SD Negeri 068008 Medan Tuntungan.

CONCLUSIONS AND RECOMMENDATION

Based on the results of the research that has been carried out based on all the discussions and results of the data analysis carried out, it can be concluded that: In the process of implementing the Inquiry Learning Model based on Audio Visual Media for Class IV Student Learning Outcomes at UPT SD Negeri 068008 Medan Tuntungan is by giving pretests and posttests to respondents namely class IV students, the test is given with 25 questions each. Before being given treatment, researchers gave a pretest to determine the extent of students' knowledge regarding the material in learning Changes in Energy Forms. After getting the pretest results, the researcher then gave treatment to students using the inquiry learning model. After giving the treatment, the researcher gave a posttest. This is done so that researchers know the extent of students' abilities after being given treatment. After implementing the Inquiry Learning Model based on Audio Visual Media to students, student learning outcomes improved. This can be seen from the average pretest score of students of 65.12 which is in the fair category, while the average posttest score is 88.96 which is in the very good category. There is an influence of the Inquiry Learning Model Based on Audio Visual Media on the learning outcomes of class IV students at UPT SD Negeri 068008 Medan Tuntungan for the 2023/2024 academic year. This can be proven by the correlation coefficient value of 0.823 which is in the very strong interpretation. The results of the t-test calculation to find out whether the hypothesis is accepted or rejected are tcount ≥ ttable, namely 6,944 ≥ 2,060, which means there is an influence of the Inquiry Model on students' science learning outcomes. Thus Ha is accepted and Ho is rejected. This research shows that student learning outcomes using the Inquiry Learning Model are more effective than student learning outcomes without using the Inquiry Learning Model. Therefore, in order to improve student learning outcomes, it is necessary to utilize learning models that can focus students' attention, especially on science learning material on Changes in Forms of Energy, one of which is the Inquiry Learning Model.

Based on the research results and conclusions that have been presented, the suggestions that can be conveyed by researchers are as follows: For teachers, with research on the influence of the Audio Visual

Media-based Inquiry Learning Model on student learning outcomes, it is hoped that the inquiry learning model can be used as an alternative for improve student learning outcomes for the better. For students, in the learning process it is hoped that students will become 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 Schools, Schools should motivate class teachers more to implement the use of learning models in every learning process. For researchers, considering that this research uses quantitative descriptive data analysis and the research subjects are 25 students in one class, other researchers who will carry out research with relatively the same problems are expected to be able to continue this research to obtain more significant findings.

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