UNVEILING THE POWER OF QUESTION CARD-ASSISTED QUIZ TEAMS FOR ENHANCED LEARNING OUTCOMES

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ABSTRACT

The problem in this study was the saturation in the learning process caused by learning methods that are still general in nature, namely the lecture method and teaching materials in the form of textbooks without other media. This study aimed to determine the effect of Question Card-Assisted Quiz Team Type Active Learning Methods on Learning Outcomes at SMA Negeri 1 Mambi. The research method used was quasi-experimental with a non-equivalent control group design. The sample in this study amounted to 40 students and was divided into two groups, namely the experimental class and the control class, using a saturated sampling technique. The instruments used were learning achievement tests, observation sheets, and documentation. The data analysis technique used was descriptive statistical analysis and inferential statistical analysis using prerequisite tests and independent sample t-tests. The result showed that the learning outcomes score in the experimental class has an average number of 86.00 which is in the very good category, while the control class has an average number of 61.20 which is in the good category. Inferential statistical analysis obtained sig. of 0.000, indicating that sig. α = 0.000 & lt; 0.05, so that H0 is rejected and H1 is accepted. These results indicate that there is an influence of the Quiz Team Type Assisted Question Card Active Learning Method on Learning Outcomes in SMA Negeri 1 Mambi.

Keywords: Learning methods; media question cards; learning outcomes

1. INTRODUCTION

Education is a process of changing human attitudes and behavior through teaching and training efforts in developing one's own abilities and individual strengths. The quality of education is strongly influenced by the quality of educators and the implementation of applicable learning practices. In learning, delivery of information or messages can be done by method directly or indirectly so that the information or messages that educators will convey can be well received as well. However, it cannot be denied that the possibility of failure to receive information or messages can occur in the learning process. A good education will trigger the delivery of information that can be channeled where the role of the teacher as an educator is decisive (Romini, 2021).

Learning is a form of behavior change as a result of individual interaction with the environment. This change can be shown in a person's activeness. Good environments will change significantly through new experiences and knowledge that can be found in the activities generated to trigger new interactions and knowledge (Pane and Dasopang, 2017). Learning is a mechanism for students to acquire knowledge as a result of stimulation originating from external and internal events, to help better understand a concept related to a concept that has not been understood in the learning process, it is necessary to learn. (Hanafy, 2014).

Learning is an effort to encourage students to be involved in learning activities, thus learning is an effort that is structured to modify learning resources so that students can create a learning process within themselves. One of the factors that can improve the quality of learning is the use of learning methods that can trigger active students, therefore the use of an appropriate learning method will trigger the delivery of information in the form of messages in learning to take place effectively so that the expected results can be achieved (Bambang, 2008).

The learning method is a method or procedure used to achieve the goals that have been set systematically. The learning method is a technique used in explaining material so that an effective and efficient learning objective will be achieved as expected. The success of a teaching and learning activity is largely determined by the suitability of the learning method applied to the subject matter to be taught and must pay attention to the interests of students to achieve learning objectives. The fact that occurs due to lack of learning methods causes students to have difficulty understanding the material presented in learning, as students are taught abstract concepts and only use conventional lecture methods so learning is tiring (Khoerunnisa & Aqwal, 2020).

Based on the results of interviews in high school country _ 1 Mambi which was conducted on Monday 29 July 2022 with educators in biology subjects and students in

class XI MIPA at the school obtained results, namely, there was still a lack of learning methods used in the learning and teaching process, especially in the digestive system material. This material is known to have a level of difficulty in recognizing and differentiating digestive organs and their functions. This condition resulted in student learning outcomes not reaching the KKM score (69), where 40% of students scored below the KKM and only 60% achieved the KKM score.

Choosing the right learning method will affect learning outcomes (Achdiyat and Warhammi, 2018). This can be seen in the learning process that occurs at SMA Negeri 1 Mambi). In the process of discussion, students tend to be unenthusiastic, only a small number participate in the discussion while others just sit monitoring and listening to the activities of their friends and some even fall asleep. After conducting interviews with students, this causes students to tend to be unfocused and less enthusiastic in learning so they tend to do other activities such as discussing with friends or going in and out of class because they don't like to write or read if they continue to do it every day. This is also influenced by the insight of students who are less related to the material, so the discussions are not enthusiastic.

One way that can overcome the learning problems experienced by students above is Active Learning Method Type Quiz Team Assisted Question Card. The Quiz Team type active learning method is a learning method that was developed where students will play an active role in the learning process, this method functions to enliven the learning atmosphere, and activities and also enthusiasm and understanding related to the subject matter, increases the ability of responsibility and confidence in students in an atmosphere of which are fun. In this method, students will be divided into three teams. Each student in the team is responsible for preparing a quiz with short answer cards; the other team uses the time to check notes. With this academic competition, it is hoped that competition will be created between groups, and students will always try to be active in learning so that they can get high scores in competitions (Sabil & Winarni, 2013).

Based on this description, the researcher is interested in researching "The Influence of Question Card – Assisted Quiz Team Type Active Learning Methods on Learning Outcomes at SMA Negeri 1 Mambi".

2. METHODS

This type of research is quasi-experimental using a non-equivalent control group design. All students of SMA Negeri 1 Mambi class XI consisting of 2 groups with a total of 40 students as a population. The research sample consisted of 20 students from class XI MIPA 1 as the experimental group and 20 students from class XI MIPA 2 as the

control group. The experimental class was a class taught using the Quiz Team Type Active Learning Method Assisted by Question Cards, while the control class was the class taught without using the Quiz Team Type Assisted Question Card Active Learning Method. The sampling method in this study is saturated sampling, this technique is carried out by taking all members of the population as samples. The instruments used are learning achievement tests, observation sheets, and documentation.

The learning outcomes test is a multiple-choice test with 25 items intended to measure the success of student learning outcomes. The test is carried out twice, namely before the treatment (pretest) and after the treatment (posttest). Observation sheets are carried out by going directly to the field and observing the implementation of learning with the Quiz Team Type Active learning method assisted by Question Cards. research on the Effect of Question Card Assisted Quiz Team Type Active Learning Methods on Learning Outcomes at SMA Negeri 1 Mambi. Furthermore, instrument validity was carried out, a valid instrument means that the instrument can be used to measure what should be measured, in this study the type of content validity was carried out. Content validity was carried out by providing a validation sheet that contained test validity criteria which would be validated by 2 validators, namely two Biology lecturers at the Alauddin State Islamic University (UIN) Makassar.

Data were analyzed using the statistical application IBM SPSS (Statistical Product and Service Solution) version 27. Descriptive statistical analysis is used to measure the average value of student learning outcomes. variance, and standard deviation and inferential statistical analysis are used to draw conclusions with the existence of provisional presumptive testing through the t-test but previously carried out normality tests and homogeneity tests.

The data normality test aims to obtain data on each variable divided in a manner normal. The criteria for testing are as follows:

a. Sign value. ≥ 0.05 means that the research data is normally distributed
b. Sign value. <0.05 means that the research data is not normally distributed

The homogeneity test aims to test whether the two samples used come from the same population. The criteria for drawing conclusions from the homogeneity test are.

a. Value $> \alpha$ means that the population data has a homogeneous variance
b. Value $< \alpha$ means that the population data has an inhomogeneous variance.

Hypothesis testing was carried out to find the temporary presumption using test two party. Test hypothesis studies This uses a t-test on the independent table (independent sample t-test). As for the hypothesis that is.

$$H_0 : \mu 1 = \mu 2$$

$$H_1 : \mu 1 \neq \mu 2$$

Information:

H_0 = There is no effect
H_1 = There is an influence

1) If the significance level < (sign value < 0.05) then H 1 is accepted, this means that there is an influence of Active Learning Method Type Quiz Team Assisted by Question Cards on Learning Outcomes at SMA Negeri 1 Mambi.

2) If the significance level > (significance value > 0.05) then H 0 is accepted, this means that there is no effect of Active Learning Method Type Quiz Team Assisted by Question Cards on Learning Outcomes in SMA Negeri 1 Mambi.

3. RESULTS AND DISCUSSION

The following are the results of research obtained by researchers at SMA Negeri 1 Mambi.

Descriptive statistical analysis of student learning outcomes in classes that are not taught using the Question Card Assisted Quiz Team Type Active Learning Method (Control Class)

Based on research that has been conducted at SMA Negeri 1 Mambi on students in class XI MIPA 2 as a control class by collecting data from test instruments (pretest and posttest) on student learning outcomes, it is obtained data that the learning outcomes of students who are taught without using the Learning Method Active Question Card Assisted Quiz Team Type in table 1:

Table 1: Analysis of pretest and posttest control class XI MIPA 2

Parameter	Pretest Value	Posttest Value
Maximum Value	40	84
Min Value	20	44
Average	31.00	61,20
Standard Deviation	5,331	12,319

Variance	28,421	151,747

Based on Table 1 above, it can be seen that the average pretest score obtained by students in class XI MIPA 2 is 31.00 with a maximum value of 40, a minimum value of 20, a standard deviation of 5.331 with a variance of 28,421, while the average posttest score is obtained by class XI MIPA 2 students of 61.20 with a maximum value of 84, a minimum value of 44, a standard deviation of 12.319, with a variance of 151,747.

Table 2: Academic Proficiency Assessment criteria

Mastery Presentation	Pretest frequency	Posttest frequency	Category
>80		1	Very good
> 60-80		9	Good
>40-60		10	Enough
>20-40	19		Not enough
≤20	1		Very less

Based on Table 2 above, the distribution of values can be obtained from pretest control class students based on the frequency distribution category. There are 19 people with fewer categories and 1 person with fewer categories. While the distribution of students' posttest scores was 1 person in the very good category, 9 people in the good category, and 10 people in the moderate category.

Descriptive statistical analysis of student learning outcomes in classes taught using the Question Card Assisted Quiz Team Type Active Learning Method (Experimental Class)

Based on research that has been conducted at SMA Negeri 1 Mambi in class XI MIPA 1 students as an experimental class by collecting data from test instruments (pretest and posttest) student learning outcomes, it is obtained data that the learning outcomes of students who are taught using the Active Learning Method Types of Question Card Assisted Quiz Teams can be seen in table 3:

Table 3. Pretest and posttest analysis of the XI MIPA 1 experimental class

Parameter	Pretest Value	Posttest Value
Maximum Value	44	96
Min Value	20	76
Average	32.00	86.00
Standard Deviation	7,678	6,291
Variance	58, 947	39,579

Based on Table 3 above, it can be seen that the average pretest score obtained by students in class XI MIPA 1 is 32.00 with a maximum value of 44, a minimum value of 20, a standard deviation of 7.678, with a variance of 58.947, while the average the posttest score obtained by class XI MIPA 1 students was 86.00 with a maximum score of 96, a minimum score of 76, a standard deviation of 6.291, with a variance of 39.579.

Table 4: Academic Proficiency Assessment criteria

Mastery Presentation	Pretest frequency	Posttest frequency	Category
>80		6	Very good
> 60-80		14	Good
>40-60	2		Enough
>20-40	15		Not enough
≤20	3		Very less

Based on Table 4 above, the distribution of values can be obtained pretest experimental class students based on the frequency distribution category. There are 2 people in the adequate category, 15 in the less category, and 3 in the very less category. While the distribution of students' posttest scores was 6 people in the very good category and 14 people in the good category.

Normality test

The normality test is to determine whether the data obtained from the student learning test results are normally distributed in the control class, namely class XI MIPA 2, and the experimental class, namely class XI MIPA 1. Provisions for decision-making in the normality test are seen from their significant value. If sign > α, it can be concluded that the data is normally distributed; if sign < α, then the data is not normally distributed. In this study, the results of the normality test can be seen in Table 5 below:

Table 5: Normality test

Kolmogorov Smirnov				
Class	Statistics	Df	*sign*	Information
Pretest Control	0.150	20	0.200	
Posttest Control	0.130	20	0.200	
Experiment Pretest	0.163	20	0.170	
Posttest Experiment	0.164	20	0.168	Normal Distribution

Based on Table 5 above, it can be obtained that sign > α, it can be concluded that the data is normally distributed.

Homogeneity Test

A homogeneity test is carried out to show whether the data from the sample that has been taken comes from a population that has the same variation in other words whether the data set has the same characteristics or vice versa. The results of the homogeneity test can be seen in Table 6 below:

Table 6. Results of control and experiment class comogeneity tests

Levene Statistics	Df1	Df2	*sign*	Information
1,926	1	38	0.173	Homogeneous

Based on the data from the homogeneity test results in Table 6 above using the Statistical Product and Service Solution (SPSS Version 27) software program, a sign value of 0.173 was obtained while the α value was 0.05, so the sign value > α. This means that both groups come from homogeneous populations.

Hypothesis Testing

Hypothesis testing was carried out to find out the temporary presumptions by using test two party. Test hypothesis studies This with use t-test in the independent table (independent sample t-test). The test criteria are H 0 is accepted if sign > α and H 1 is rejected otherwise H 0 is rejected if sign < α and H 1 is accepted, with a significance level of α = 0.05. The results are in Table 7 below:

Table 7. Results of hypothesis testing data on learning outcomes

	Levene's Test for Equity of Variances		t-test for Equity of Means		
	F	*sign*	Q	Df	*Sign* (2tailed)
Equal Variances Assumed	11,034	0.002	8,018	38	0.000
Equal Variances non Assumed			8,018	28,28	0.000

A study is said to have a proven hypothesis if the significance value is smaller (sign < 0.05), where H0 is rejected and H1 is accepted. Based on Table 7 it can be seen that the significant value in the hypothesis test using the Statistical Product and Service Solution (SPSS Version 27) software program, obtained Sign value (2-tailed) = 0.000 So the hypothesis in this study can be said to be proven because 0.000 < 0. 05 or by looking at the t count of 8.018 while the t table is 11.034 thus t count > t table. This means there is a significant difference between the learning outcomes of students who are taught using the Question Card Assisted Quiz Team Type Active Learning Method

and those who are not taught using the Question Card Assisted Quiz Team Type Active Learning Method. This shows that there is an influence of the Active Learning Method Type Quiz Team Assisted by Question Cards on Learning Outcomes in SMA Negeri 1 Mambi.

Learning outcomes of students in classes that are not taught using the Question Card Assisted Quiz Team Type Active Learning Method (Control Class)

Based on research conducted in class XI MIPA 2 which is a control class where the learning process is not taught using the Question Card Assisted Quiz Team Type Active Learning Method by giving learning tests in the form of pretest and posttest with the form of multiple choice questions totaling 25 numbers. The pretest and posttest results are then carried out by testing descriptive analysis to provide an overview of the values acquired by students as a result of their learning. After testing the descriptive statistical analysis to provide an overview of the values acquired by students as a result of their learning. After the analysis was carried out, the pretest results were obtained with an average value of 31.00, a maximum value of 40, a minimum value of 20, a standard deviation of 5.331, and a variance of 28.421, while in the posttest the average value was 61.20, with the maximum value is 84, the minimum value is 44, the standard deviation is 12.319, and the variance is 151.747.

To calculate the learning outcomes of students who are not taught using the Question Card Assisted Quiz Team Type Active Learning Method in MIPA 2 class the researcher refers to the academic proficiency assessment criteria. Based on these categories, there is 1 student in the very good category with a percentage of 5%, there are 9 students in the good category with a percentage of 45% and 10 students in the moderate category with a percentage of 50%. As well as an average value of 61.20 which is in the good category.

Based on the results of this study, in general, it can be said that the achievement of learning outcomes for students in the control class has increased when compared to the results of the pretest carried out, however, this increase has not yet reached the Minimum Completeness Criteria (KKM) value of 69. According to the results obtained in the control class, it shows that learning is good but not optimal because educators tend to provide short material with group discussion learning where students are less active, this is also due to educators not using media that supports the learning process so that students do not understand the material.

According to Huda (2016), teaching and learning activities in the classroom are separate communications where educators and students exchange ideas to develop ideas. In communication, deviations often arise and occur so that communication is not effective and efficient, including students' unpreparedness to learn and students lack of

activity. According to Nurgiansah (2022) to improve the quality of learning, in addition to learning models, it is also necessary to use media in learning where this media really helps the effectiveness of the process of conveying messages and lesson content. Learning media can increase the knowledge of participants and encourage students to be active.

Student learning outcomes in classes taught using the Question Card Assisted Quiz Team Type Active Learning Method (Experimental Class)

Based on research conducted in class XI MIPA 1 which is an experimental class in which the learning process is taught using the Question Card Assisted Quiz Team Type Active Learning Method by giving learning tests in the form of pretest and posttest in the form of multiple choice questions totaling 25 numbers. The pretest and posttest results are then tested with descriptive statistical analysis to provide an overview of the values acquired by students as a result of their learning. After testing the descriptive statistical analysis to provide an overview of the values acquired by students as a result of their learning. After the analysis was carried out, the pretest results were obtained with an average value of 32.00, a maximum value of 44, a minimum value of 20, a standard deviation of 7.678, and a variance of 58.947, while the posttest obtained an average value of 86.00, with the maximum value is 96, the minimum value is 76, the standard deviation is 6.291 and the variance is 151.747.

To calculate the learning outcomes of students who were taught using the Question Card-Assisted Quiz Team Type Active Learning Method in the MIPA 1 class, the researcher referred to the academic proficiency assessment criteria. Based on these categories, there are 6 students in the very good category with a percentage of 30% and there are 14 students in the good category with a percentage of 70% and an average score of 86.00 which is in the very good category. Based on these data, the learning outcomes of students who were taught with the Question Card Assisted Quiz Team Type Active Learning Method were in the very good category.

Student learning outcomes have increased due to learning with the Question Card Assisted Quiz Team Type Active Learning Method which encourages students to be active in learning, especially group learning. This can be seen from the implementation of learning sheets and direct observations by researchers, where students look more enthusiastic in learning.

According to Royani and Muslim (2014), when students learn actively, they dominate the learning activities. With this they actively use their brains to find main ideas from learning material, solve problems or apply what they have just learned to a problem they face, and push towards a more enjoyable atmosphere. In addition, it is also necessary to have a media that supports the learning process according to

Kusumawati (2019), Question Card media is a medium that helps students become more motivated to learn, without having to be burdened by rigid and boring learning situations.

Quiz Team Type Active Learning Methods Assisted by Question Cards at SMA Negeri 1 Mambi

The hypothesis test in this study was used to be able to see differences in posttest scores for the experimental class (XI MIPA 1) and the control class (XI MIPA 2), based on the results of the independent sample t-test analysis, a sign value (2-tailed) of 0.000 was obtained. This shows that the sign value (2-tailed) $<\alpha$, so it can be concluded that H0 is rejected and H1 is accepted. This means that there is a significant influence on the learning outcomes of students who are taught by the Question Card Assisted Quiz Team Type Active Learning Method on student learning outcomes. Active Learning Method Type Quiz Team Assisted Question Cards received positive responses from students, where students were more enthusiastic when doing learning, and were more active in group discussions because learning became more fun so understanding of the material being studied and learning outcomes also increased.

Active Learning Method Type Quiz Team Assisted Question Card is packaged in an attractive way to encourage students to be more active in learning biology. This is in line with what was said by Wulandari et al (2017), Active Type Quiz Team is a type of active learning method that functions to activate students to ask and answer questions, liven up the learning atmosphere, and increase student responsibility for what is learned in a fun and not the boring way so that students are active in the classroom.

According to Zulfahmi (2013), active learning provides the widest opportunity to develop interactions between educators and students, between students themselves, as well as between students and materials or topics in an academic discipline, this active learning allows a high level of active participation of participants. students, encouraging the use of previous experiences and knowledge, enabling new perspectives/views on topics or material, and encouraging a sense of responsibility for learning so as to develop students to become more independent. In addition to using learning methods that are in accordance with the characteristics of students, it is necessary to pay attention to the use of learning media. According to Astuti et al (2019), Question Card media is a visual media which contains questions related to the material discussed during learning where with this media students will be more enthusiastic in learning and will increase their knowledge.

This study proves that the Question Card Assisted Quiz Team Type Active Learning Method shows a significant effect. Students' understanding especially on the digestive system material can be achieved. This shows that the Question Card Assisted Quiz Team

Type Active Learning Method can be used in learning, especially in group discussion activities.

CONCLUSION

Question Card Assisted Quiz Team Type Active Learning Method obtained an average pretest result of 31.00 in the less category and the average score is 31.00. posttest average of 61.20 in the good category. 2) The learning outcomes of students in classes taught using the Quiz Team Assisted Question Card Type Active Learning Method obtained an average pretest score of 32.00 in the less category and an average posttest score of 86.00 in the very good category. 3) There is an influence of the Question Card Assisted Quiz Team Active Learning Method at SMA Negeri 1 Mambi with a sign value < α = 0.000. < 0.05 so that H0 is rejected and H 1 is accepted. This shows that Question Cards on Student Learning Outcomes assist an influence of Active Learning Method Type Quiz Team.

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