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### The Ability of the Question and Answer (Q&A) Method with the Help of Learning Videos against Student Learning Outcomes amid the Covid-19 Pandemic

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#### Abstrak

Dalam pembelajaran fisika sangat di perlukan kemampuan pemahaman konsep terutama ditengah pandemi Covid-19. Pendidikan harus tetap menjamin terselenggaranya proses pembelajaran sesuai dengan bakat dan ketertarikannya dan menjamin hasil belajar siswa. Tujuan dari penelitian ini adalah sebagai kontribusi guru dalam meningkatkan hasil belajar peserta didik kelas VIII Madrasah Tsanawiyah Pondok Pesantren Darul Arifin Jambi menggunakan metode tanya jawab berbantu video pembelajaran untuk meningkatkan hasil belajar siswa. Penelitian ini adalah Penelitian Tindakan Kelas (PTK) dengan menggunakan 2 siklus. Pada setiap siklus memiliki 4 tahap yaitu perencanaan, pelaksanaan, pengamatan dan refleksi. Subjek dalam penelitian ini adalah semua siswa kelas VIII Madrasah Tsanawiyah Pondok Pesantren Darul Arifin Kota Jambi. Teknik pengumpulan data melalui observasi dan tes hasil belajar, dengan indikator keberhasilan paling kecil 75% siswa berhasil dalam tes hasil belajar. Pada tes hasil belajar nilai rata-rata yang siswa masih rendah yakni 34,97 dengan presentase ketuntasan 5,88%, pada siklus I meningkat menjadi 63, dengan presentase ketuntasan 52,94%, pada siklus II nilai rata-rata menjadi 76,47 dengan presentase ketuntasan sebesar 82,35%.

**Kata Kunci:** Metode Tanya Jawab, Video Pembelajaran, Hasil Belajar

#### Abstract

*In learning physics, it is very necessary to have the ability to understand concepts, especially in the midst of the Covid-19 pandemic. Education must continue to ensure the implementation of the learning process in accordance with their talents and interests and ensure student learning outcomes. The purpose of this research is to contribute to the teacher's contribution in improving the learning outcomes of class VIII Madrasah Tsanawiyah Pondok Pesantren Darul Arifin Jambi using the question and answer method assisted by video learning to improve student learning outcomes. This research is Classroom Action Research (CAR) using 2 cycles. Each cycle has 4 stages, namely planning, implementation, observation, and reflection. The subjects in this study were all students of class VIII Madrasah Tsanawiyah Pondok Pesantren Darul Arifin Jambi City. The technique of collecting data is through observation and learning outcomes tests, with a minimum success indicator of 75% of students succeeding in the learning outcomes test. In the learning outcomes test, the average score of students is still low, namely 34.97 with a percentage of completeness of 5.88%, in the first cycle it increases to 63, with a completeness percentage of 52.94%, in the second cycle the average value becomes 76.47 with a completeness percentage of 82.35%.*

**Keywords:** Question and Answer Method, Learning Video, Learning Outcomes

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## INTRODUCTION

Education amid the Covid-19 pandemic experienced a shift in learning patterns(Chang et al., 2020; Zb et al., 2020), which aims to accelerate the physics learning process(Sudaryanto et al., 2020; Wells et al., 2019), but how to make learning effective. One of the teaching and learning processes in the formal world is in schools, and learning physics must develop students' abilities both in analyzing and solving problems, especially in understanding concepts in physical material(Ramlo, 2008; Scott & Schumayer, 2017; Wells et al., 2019). Understanding concepts in physics learning is fundamental to find out how the methods are used so that students can be channeled according to their talents and interests. The teacher's expertise in choosing the right approach to improve learning outcomes requires good accuracy by the teacher in selecting learning methods so that learning outcomes can run well. In other words, other teachers must provide appropriate support that can be used in the learning process(Wei et al., 2021), which is the goal of achieving maximum learning outcomes and evidenced by the completeness of student learning outcomes in physical learning. Teachers must be able to choose the suitable method according to the situation and condition of students so that students have high motivation and creativity in learning physics(Shute & Rahimi, 2021; Sulman, 2019) one of which is simple machine material in the midst of the Covid-19 pandemic.

The teaching and learning process must encourage student motivation in both formal and non-formal learning environments(Margot & Kettler, 2019), both in regular and extraordinary conditions, especially in physics subjects on simple machine material. The process of presenting the required simple plane material in physics The provision of the proper learning method by a teacher can be an essential factor in improving student learning outcomes. This is because the learning method can significantly impact students' understanding of the simple machine being studied. The process of learning physics about simple machine material requires interaction and extensive exposure from the teacher so that it is easy to digest in the learning process. The straightforward and comprehensive learning process makes the reason that the method according to the researcher is appropriate and practical to apply is the Q&A method because the Q&A method can be carried out both online and offline on simple machine materials, so it is not limited to changes in patterns that occur during the current pandemic(Shute & Rahimi, 2021; Thees et al., 2020). The question and answer method can not only be used to deliver lessons by the teacher, by asking questions and students answering and giving their opinions on religious and social science subjects(Abdika et al., 2019; Sitohang, 2017), especially if it is added with learning videos, it will be wrong. one of the best subject solutions in the midst of the covid-19 pandemic, especially on simple machine material. In simple machine material, good interaction between teachers and students is needed, and the question method is the best way in delivering or presenting material in the form of teachers whom students must answer or vice versa(Huda, 2020; Manik, 2020). The process of good interaction, which can be seen from listening, seeing, and reading, is a new problem between teachers and students, so learning must continue to run well and maximally(Reed et al., 2020). understanding can overcome the problem of interaction between teachers and students by using the Question and Answer method (Q and A) assisted with animated videos so that it is perfect for providing solutions in improving student learning outcomes on simple machine material amid the Covid-19 pandemic accompanied by consistent learning videos will be a potent mix in the learning process. The process of learning simple machine in physics learning must be able to attract attention, develop thinking power, build courage, practice speaking and thinking skills regularly, and objectively determine the level of student abilities and require good discipline in learning.

The use of a learning method will, of course, be accompanied by a supporter of the technique. In this case, the researcher argues that a method will look more attractive and attract students' interest and attention if the tools used can increase attractiveness and involvement. Namely helping with educational media(Ozkazanc

& Yuksel, 2015); Educational experts or experts have designed many academic media, learning video media or commonly called Audio Visual(Sulman et al., 2021; Zb et al., 2020), but there are still few who try to apply the question and answer method that is combined with learning videos consistently. Audio-Visual Media is a medium for delivering audio (sound) and visual (image) information which now has excellent image and graphic display so that Audio Visual media is a material or tool that can be used in learning situations to help writing. Words are spoken in transmitting knowledge, attitudes, and ideas, appropriately in the midst of pandemic or ordinary activities(Sastradika et al., 2021; Sulman et al., 2021).

Student learning activities amid the Covid-19 pandemic were reviewed from the observation process and interviews conducted by researchers with science subject teachers, especially physics material at Pesantren Darul Arifin Jambi MTs class VIII, Jambi City. Researchers found several facts that could be some obstacles. Which, in the end, will be able to cause student achievement or learning outcomes in physics material not to run optimally. The first thing is an indication that teachers who teach physics subjects are not following their fields of expertise(Lee & Lee, 2020; Pe'er et al., 2007) Second, educators are less precise in using learning models on physics material. Namely, they tend to use the lecture learning model to cause boredom in their students(Kuzmickaja et al., 2015). Third, it comes from the students themselves. Students in learning physics can be seen and analyzed from the results of interviews that students' interest in physics material is still low so that students are less active and tend to be passive in the learning process(Carmi et al., 2015; Shute & Rahimi, 2021; Sulman et al., 2021). Then Fourth, physics learning does not take place regularly or the stages of providing material so that students do not have a basis in good physics learning Fifth, students have instilled in their minds that where they consider physics material as a difficult subject and difficult to understand and analyze(Sulman et al., 2020). Sixth, there are still many students who don't seem to dare to ask students, teacher, let alone express opinions in front of the class. Seventh, inappropriate learning media is used where the learning media is less effective in increasing students' interest and motivation in the learning process. As a result, students feel bored more quickly in the learning process. The learning process was also marked by the number of students who scored below the Minimum Completeness Criteria (KKM) of 70. Based on this, it was known that the decline in physics learning outcomes occurred in class VIII. The cause of the low student learning outcomes is the learning method used is not appropriate, and there is no use of learning media. Conditions like this make student activities less than optimal. Therefore changes and improvements are needed in the implementation of learning(Wei et al., 2021).

The facts found in the field are an indication that the learning process on simple machine materials must be changed and improved in maintaining and enhancing student learning outcomes so that the learning process can continue to run optimally, namely by applying the question and answer method (Q and A) assisted by animated videos that can be the solution to the above problem. The process of change and improvement in terms of the teaching and learning process must be a driving force for students in the learning process, and this will have an impact not only on changing perspectives on the learning process but changes in learning like this can affect changes in the quality of student output. Both in the form of improving the quality of low student scores for the better, because the provided modifications will increase high morale in students so that they are not only well received and pleasant for students but can also be a character of future learning changes so that learning outcomes can change for the better.

## METHOD

In this study, the researcher used a qualitative approach. This approach is related to the improvement or improvement of the learning process in the classroom(Creswell, 2012). The use of a qualitative method because this research produces descriptive data in both written and oral form and the behavioral activities of people or sources of information in the study. While the quantity used is a combination of data that can

complement each other to see the success of the teaching and learning process. This type of research is Classroom Action Research. The subjects of this study were students of class VIII Madrasah Tsanawiyah Pondok Pesantren Darul Arifin Jambi, totaling 17 students. In classroom action research, the researcher needs to be assisted by a supervisor as a collaborator, so in this case, the researcher asks for help from the teacher at Darul Arifin Islamic Boarding School as a practical teacher in the study. There are three teachers involved as collaborators. These selected teachers are engaged in a team or discussion partner starting from predetermined stages, namely action planning, action implementation, observation, reflection, and revision. This collaboration process is carried out when researchers conduct research. Process Activities in the study are carried out based on a predetermined action plan, namely carrying out learning following the curriculum and lesson plans that have been made and approved in the pesantren.

This research focuses on applying the Question and Answer (Q&A) method assisted by learning videos to increase student activity and learning in physics subjects with simple machine materials amid the Covid-19 pandemic. At the stage of implementing this action, the learning process is carried out according to the learning plan designed and contained in the lesson plan. The research data obtained are observations from each action process during the application of the Question and Answer method (Q and A) assisted by learning media for class VIII students. The data used is related to the planning process, implementation, and learning outcomes. The research instruments in this study were observation, field notes, and also interviews. The data that the researcher got was analyzed using qualitative analysis techniques, where the analysis of the research data began by examining the data collection from beginning to end. Furthermore, the data reduction process is carried out based on the problems studied, accompanied by data presentation, and ends with conclusions or data verification of the overall research results. The analysis stage is carried out repeatedly at each stage of data collection in each action. Analysis of research data was carried out on data that had been reduced, both planning, implementation, and evaluation data, which were carried out in separate ways so that comprehensive information was obtained that supported learning and hindered learning. Thus the development and improvement of various deficiencies can be carried out precisely in the relevant aspect. Furthermore, the data obtained from the observations of the learning process will be analyzed. Each learning process carried out is material to determine the following action. The results of the information and data obtained are used to draw conclusions from the actions taken and finally included in the research report, then the learning outcomes obtained are analyzed to see the changes, using statistics with the formula proposed by Masyhud, 2012 in (Ananda & Fadhilaturrahmi, 2018). The data obtained during learning is processed using the percentage technique using the formula proposed by Masyhud, 2012 in (Ananda & Fadhilaturrahmi, 2018)  $P = F/N \times 100\%$ .  $P = F/N \times 100\%$ . The increase in student activity is low, quite high or very high is determined based on the criteria set by Arikunto, 2013 In (Dewi, 2016) namely: 1) 81%-100% Very High, 2) 61%-80% High, 3) 21% -41% Low and the indicator of success in increasing student learning outcomes in the learning process is shown if students are able to at least 75% of students succeed from all who follow the learning process.

## RESULTS AND DISCUSSION

The initial process in conducting this research is a planning process based on the observation process before conducting cycle research or what is commonly called pre-cycle research. Researchers conducted pre-cycle research initially, which in pre-cycle research got information that the student's completeness score was still low, namely 5.88% and 94.11% incomplete. This shows that errors occur in the learning process (Altun-Yalçın et al., 2011; Helms, 2014). Teachers still use a paradigm in teaching, namely teachers dominate the learning process so that in the learning process they still use conventional methods with students only coming, sitting, listening to the material after returning home, even though in the industrial revolution 4.0 people have

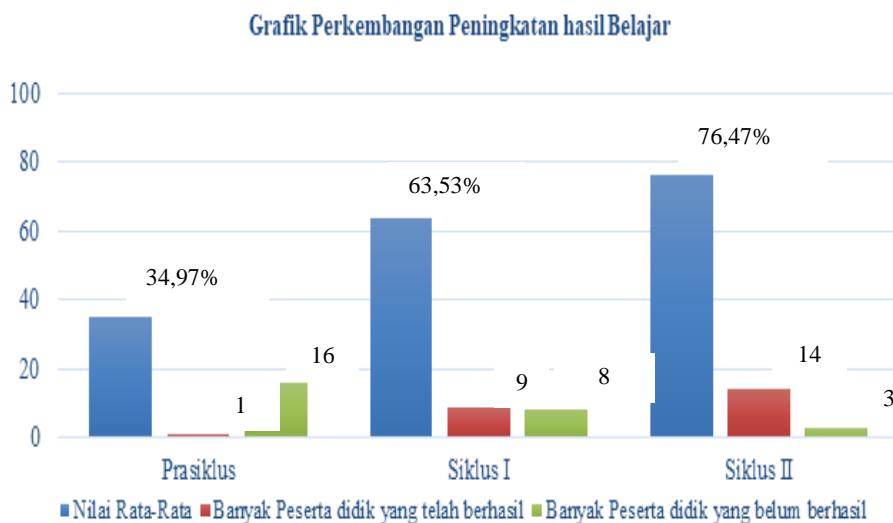
proven the quality of modern learning, one of which is artificial intelligence methods and digital learning (Audunson & Shuva, 2016; Ouyang & Jiao, 2021).

The learning process that is already difficult to develop should be abandoned because it can result in a static and rigid learning process which ultimately makes students feel bored, lack enthusiasm, and students no longer feel the need and even tend to underestimate the learning process, so that learning outcomes of the participants is very difficult to be improved for the better. The quality of the learning process now cannot be viewed from individual students but must be seen by students as a group, all of which must improve their learning outcomes and be able to apply them in the world of work (Basham & Editor, 2010; Brears et al., 2011; Mullet et al., 2018). The analysis of the learning changes that have been made can be seen from the results of student development from the pre-cycle, which can prove that the development of students is much better and can be seen in full in Table 1.

**Table 1**  
**Student Learning Outcomes in Cycle I and Cycle II**

No	Observed variables	Amount or Percentage of increase		
		Precycle	Cycle I	Cycle II
1	Average value	34,97	63,53	76,47
2	Many students have succeeded.	1	9	14
3	Many students who have not succeeded	16	8	3
4	The percentage of students who have succeeded	5,88%	52,94%	82,35%
5	Percentage of Students who have not succeeded	94,11%	47,05%	17,64%

Based on Table 1, it can be stated that student learning outcomes on physics material by applying the question and answer method assisted by learning videos show that there is an increase in learning outcomes. From the results of the analysis carried out in the form of the first reflection, it was found that there was a significant increase in the number of students who completed obtaining a score of  $\geq 70$ , namely as many as nine students with a percentage of 52.94% of the total 17 students, and in terms of the analysis of the average score. The average data obtained amounted to 63.53. This has illustrated the occurrence of stimuli in the learning process which resulted in changes in the ability of students' learning outcomes, although not significantly, which may be due to still in the adaptation and interaction stages of the learning process (Basile & White, 2000; Lewis et al., 2006). Each cycle in this study will refer to the process of reflection of the real situation that occurs in the field so as to improve the quality of student learning more precisely and accurately, as shown in Figure 1.



**Figure 1. The Development of Student Learning Outcomes**

From Figure 1, it can be seen clearly that the facts that occurred during the research process where there was a significant shift in the form of increasing student learning outcomes that were influenced by the question and answer method with the help of learning videos. This is clearly observed when we review the second cycle, where the data shows the effectiveness of improving learning outcomes that have been optimal, where in the first cycle and second cycle in general, there is an increase in learning outcomes accompanied by student activities in the process Learning. This clearly confirms the researcher's belief that the Question and Answer Method with learning videos, in general, can activate the process of student learning interactions to be better and effectively used in various situations.

If it is reviewed more deeply, Cycle I is the initial stage in changing the pattern of learning where it is known that class VIII students have not succeeded in achieving the specified success indicator, which is 75% of the KKM score of 70. The findings in cycle I are the initial indicators to continue in the cycle. Second, by referring to the reflection process in the field. The Reflection Process in Cycle I was used to analyzing the phenomenon of the learning process in the field. So, to achieve success, it is necessary to make improvements to the weaknesses in the long-term learning process(Charlier & Lambert, 2020; Lavasan et al., 2011). The results of the first cycle found by the teacher in the field include, Researchers have not made time efficiency optimally, Students are still less active in asking questions, Researchers' attention to student activities is not evenly distributed so that it can interfere with the learning process and still tends to the old style(Patall et al., 2017). The result that arises is that the learning outcomes of students have not reached the specified indicators even though the average value of students has experienced symptoms of an increase. Cycle I was carried out in 2 meetings. At each meeting, observations and reflections were carried out. The observation results show that student activity has increased.

According to the observer's analysis in the field, the fact that students entered on time and followed the learning process was the most dominant thing in the learning process. This may be indicated because it is a well-established discipline in the learning process. Discipline is certainly a good indicator and the first step in carrying out the maximum learning process(Honey et al., 2014; Lim & Richardson, 2021). At this stage of activity, students are seen to be active, although there are still some students who are not active in asking or answering in the learning process. So at the stage of the first cycle, it can be concluded that the activities of the students on the active criteria once there are eight activities, the activities on the active criteria there are two activities, and the activities of the students on the moderately active criteria have three activities so that

the average number of student activities is 79.6% which if interpreted in the percentage interpretation scale for student activities is in the active criteria.

The research process was carried out using two paradigms, namely by referring to the point of view of student learning outcomes and also how the activities of teachers. In this study, observations were made to the teacher by giving an observation sheet. Based on the observations that have been made to the teacher that the results of observing the teacher's activities in the first cycle are good. At the same time, the learning outcomes obtained in the first cycle can be seen that learning outcomes began to increase. This can be seen from the class average, which reached 70 while there were nine people with a percentage of 52.53% and eight people who did not complete it. Therefore, it needs to be improved again so that researchers continue the research by taking action in cycle II.

In cycle II, the material that will be taught to students is about pulleys and inclined planes in the concept of simple planes. The implementation of cycle II was also carried out in 3 meetings. During the learning process in the second cycle, the researcher became an educator and collaborated with the science teacher at MTs Pondok Pesantren Darul Arifin Jambi. In the second cycle, the observations showed an increase in student activity than in the first cycle. At the preliminary stage, students entered on time and followed the learning process. At the core activity, stage students are already active. Some students are confident to ask and answer questions from the teacher. In the closing stage, students get a good assessment from the observer at the end of the lesson. So in the second cycle, it can be concluded that the activity of students on the active criteria once there are 12 activities, the activity of students on the active criteria there is one activity so that the average student activity is 91.46% which, when interpreted in the rating scale, is in the very active criteria. And on the teacher, it can be seen that the results of observing teacher activities in cycle II are good. In learning outcomes, it can be seen that student learning outcomes have increased. The learning outcomes of 14 students reached the KKM, and it can also be seen that the implementation of the second cycle of class actions has increased. This can be seen from the learning outcomes of the first cycle, which was attended by 17 students with an average value of 63.53, which increased in the second cycle to 76.47. In the second cycle, the students' completeness reached 82.35%. Student learning outcomes in cycle II are in accordance with the expected success indicators.

From the explanation above, it can be concluded that there is a change with the average value of the pre-cycle, cycle I, and cycle II towards the better where the movement of changes occurred significantly, which indicated that the question and answer model with learning videos could make a maximum contribution in improving student learning outcomes. The actions given in the second cycle are a comprehensive study of the improvements from the previous cycle's shortcomings. Cycle II provides tangible evidence of the success of the question and answers learning model with the help of animated videos that can encourage students' interest and motivation to learn in obtaining maximum learning outcomes, because in cycle II, students have achieved the minimum completeness criteria (KKM) 70 out of 75 % of success indicators that have been determined so that it can be conveyed that the use of the question and answer(Q&A) method causes students' activities and learning outcomes to increase significantly.

## CONCLUSION

Increased activity and student learning outcomes in physics lessons with simple aeroplane materials after applying the question and answer method assisted by video learning at Ponpes Darul Arifin Jambi City: 1) Students are boarding students in a boarding school environment and carry out learning according to health protocols. 2) The development of teacher activities and student learning outcomes can be observed through the question and answer process and is in line with several other studies, so it is advisable to add the right media that is appropriate to assist the learning (Huda, 2020; Sri Hastuti, 2021). 3) The learning video media that the

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researcher chose has proven to be an educational companion and can be a compliment in learning so that it can have a considerable influence on increasing the development of student activities and learning outcomes, 5) Student activities and learning outcomes has increased, this can be seen in the initial conditions before the action is carried out, the number of children who complete is very small. In the first cycle, there has been an increase in the second meeting but has not yet reached the desired KKM. Then the action was continued in cycle II and experienced a very significant increase from the first meeting to the second meeting, which had reached the minimum completeness criteria (KKM) of 70 out of 75% of the specified achievements.

Based on the conclusions that have been obtained in this study for the sake of perfection of Classroom Action Research in the future, suggestions are given regarding 1) For teachers to consider the obstacles that can occur when learning is carried out with solutions if signal interference occurs when online learning is carried out, 2) For can increase student interest and motivation in learning patterns in the midst of the Covid-19 pandemic, then different teachers create a dynamic atmosphere compared to usual in order to increase student creativity and activity, 3) Researchers hope to use this article as a reference or source of knowledge which is useful for adding insight to education in a pandemic emergency and in the future.

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