

CHAPTER I

INTRODUCTION

1.1 Background

Education is one of the efforts made by humans which aims to produce human resources with good quality and quality who are able to face life's challenges and can compete globally. So, education is a system designed to achieve certain goals. The system in education is composed of several elements, including educators, students, interactions between educators and students, educational materials, and also the educational environment.

The role of educators in the student learning process is very important. In this case, the duties and responsibilities of the teacher are increasing, including the teacher's function as a teaching planner, teaching manager, assessor of learning outcomes, learning motivator, and as a guide. Teachers are required to be able to design creative and innovative learning to get maximum learning outcomes, especially in physics. Physics is a branch of science that studies natural phenomena and their interactions. Physics learning in a scientific approach must demonstrate the competence of scientific attitudes and scientific work skills. This is because physics is a science that was born and developed through the steps of observation, problem formulation, hypothesis preparation, hypothesis testing through experiments, drawing conclusions, and finding theories and concepts. Therefore, learning physics requires understanding and understanding the concept that prioritizes the process of forming knowledge through steps in the form of discovery and presentation of data based on certain rules. Therefore, students must play an active role in the learning process so that they are able to construct their own knowledge in order to achieve educational goals and improve their learning outcomes.

The aim of national education is to develop the potential of students to become human beings who believe and obey God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens. These educational goals can be achieved if there is a

significant development and improvement of student learning outcomes and also the ability of students to think critically and creatively.

Educational goals can be achieved if the teacher has the right strategy so that students can learn effectively and efficiently. The strategy referred to in this case includes, among others, models, methods, media, and learning patterns. These learning strategies, models, methods, and patterns are the main aspects of the teaching and learning process. A teacher must be careful in choosing the learning strategy he will use because it is a big responsibility of a teacher in shaping the learning experience of students.

Based on the results of an interview with one of the physics teachers of SMA Negeri 1 Percut Sei Tuan, the researcher found that the cognitive learning outcomes of students were still low. This is evident from the average score of physics exams which is still below the Minimum Completeness Criteria (KKM), which is 75. Especially during the current pandemic, student learning outcomes have decreased more. This is due to the passive attitude of students during the learning process. The passive attitude of students in learning causes students to be unable to understand and find learning concepts optimally because the learning that is carried out is still centered on the teacher (teacher centered learning). In addition, students' independent learning is still not good, coupled with the lack of student learning references used, namely only textbooks. Various attempts have been made by the teacher to overcome these problems, such as conducting discussions and questions and answers, but these efforts are considered unable to handle them and are considered boring.

The teacher also said that in the learning process he still use expository learning strategies. As the results, students tend to be passive and the activities of the students just listening. Expository learning strategy is a learning strategy that emphasizes the process of delivering material verbally from a teacher to a group of students with the intention that can master the subject matter optimally. The advantage of this strategy is considered very effective if the learning material that must be mastered is wide enough, while the time for learning is limited. Meanwhile

the disadvantage is this learning strategy can only be used for students who good at listening. For students who doesn't have that skills, tescher needs another strategies.

Seeing conditions like this, it is very important for teachers to foster independent and active student learning. Student activeness in learning has a positive impact on learning progress, maturity, and point self-direction in active learning. Students activate their brains to think, express opinions, sharpen analysis, and answer various problems or questions logically and argumentatively. Therefore, it is important for teachers to use innovative learning. From so many innovative learning strategies, one of the most appropriate learning strategies to improve critical thinking skills and improve learning outcomes but which can still be done independently by students is the RQA (Reading, Questioning, Answering) learning strategy. The RQA strategy is a learning strategy based on constructivism theory (Bahtiar, 2013).

RQA (Reading, Questioning, and Answering) learning strategies can increase metacognitive awareness, metacognitive skills, and cognitive learning outcomes of students. This is because the RQA strategy is a learning strategy that in its implementation is student-centered and demands the independence and activeness of students to prepare themselves before learning. (Mustika, 2019)

In this study, researcher chose the RQA (Reading, Questioning, Answering) learning strategy because this strategy has a continuous learning syntax and supports each other in maximizing the improvement of student learning outcomes. The phases in RQA, which begin with reading, are basic learning skills, followed by questioning, in which these skills are acquired as a result of reading and making a resume. When students have understood the material they read, students are able to answer a number of related questions. These three components, when combined, will become an ability that can improve student learning outcomes. In addition, the RQA (Reading, Questioning, Answering) learning strategy is also very flexible and can be applied in face-to-face learning and online learning-based learning.

In addition, the enthusiasm of students in learning physics, especially low wave material, is due to the abstract concepts that exist in the wave material. Students stated that the teacher did not explain the concepts of waves and monotony

only focused on solving questions that were not too diverse, especially during the Covid-19 pandemic. And also assignments given by the teacher are not "forcing" students to learn and look for other references to deepen their knowledge in order to improve learning outcomes and students' critical thinking skills.

The results of previous research using the RQA learning strategy state that this learning strategy can improve student cognitive learning outcomes. The research results of Iqbal and Slamet (2014) say that the RQA learning strategy can improve student learning outcomes which can be seen from the activity of students in the experimental class which is higher than the control class. Another study is Bahri (2016) which states that the cognitive learning outcomes of students who are taught with the RQA strategy are 12.57% higher than those who are not taught with the RQA strategy. In addition, in the research of Dewi Firdausi *et al.* (2018) and Adi Purwanto (2018) state that the use of RQA learning strategies can improve students' critical thinking skills. This can be seen from the increase in the average score obtained by students.

The research above shows that the use of the RQA strategy has succeeded in improving student learning outcomes by face-to-face learning. In this research, researchers will use the RQA strategy with online learning based on Google Classroom assistance.

Based on the background described above, the researcher is interested in conducting research with the title "**The Effect of RQA (*Reading, Questioning, Answering*) Learning Strategy Assisted by Google Classroom on Students' Learning Outcomes on Static Fluids Topic**".

1.2 Problem Identification

Based on the background that has been described, the problem identification in this study are:

1. Learning is still centered on the teacher.
2. Teachers have not made innovations in their learning strategies.

3. Students' understanding in learning physics, especially wave material is still not good.
4. Not all teachers understand online learning well because it is considered too complicated.
5. Lack of reading references material for teachers and students.

1.3 Problem Formulation

Based on the identification of the above problems, the formulation of the problem in research on static fluids material in Class XI Semester II SMA Negeri 1 Percut Sei Tuan T.A 2020/2021 is:

1. How are the student learning outcomes using the RQA strategy assisted by Google Classroom on static fluids material?
2. How are student learning outcomes using expository strategy on static fluids material?
3. Is there a significant effect of learning with the RQA strategy assisted by Google Classroom on students' cognitive learning outcomes on static fluids material?

1.4 Problem Limitation

Based on the identification of the above problems, the authors limit this problem, namely:

1. The strategy used is the online-based RQA (Reading, Questioning, and Answering) strategy.
2. The main material that will be given is Static Fluids material.
3. The online learning media used is Google Classroom.
4. The subjects studied were students of class XI semester II SMA Negeri 1 Percut Sei Tuan T.P 2020/2021.

1.5 Research Objectives

Based on the formulation of the problem that has been compiled, the objectives of this study are:

1. To determine student learning outcomes using the RQA strategy assisted by Google Classroom on static fluids material.
2. To determine student learning outcomes using expository strategies on static fluids material.
3. To prove the effect of the RQA learning strategy assisted by Google Classroom on students' cognitive learning outcomes on static fluids material.

1.6 Research Benefits

After this research is completed, the expected benefits of this research are:

1. For schools, become a references and material for consideration by schools in developing the learning strategies used.
2. For teachers, as material for consideration in choosing learning strategies that can improve learning outcomes during the online learning process.
3. For students, further improve mastery of material by improving learning and increasing the quality of the learning process.
4. For researchers, increase knowledge and broaden insights about RQA learning strategies that can be used later in teaching.

1.7 Operational Definition

1. Learning Strategy RQA (Reading, Questioning, and Answering) is a new learning strategy based on constructivism theory where this strategy emphasizes the activeness of students in constructing their own knowledge through reading, compiling questions, and making answers to questions.
2. Learning outcomes are something that is related to learning activities because learning activities are a process while learning outcomes are part of the

results achieved by someone who experiences a teaching and learning process, by first conducting an evaluation.



THE
Character Building
UNIVERSITY