

CHAPTER I

INTRODUCTION

1.1 The Background of Study

Efforts that can be made to realize the learning objectives are to improve the quality of the education. One of the qualities of education can be seen from the learning outcomes of students at every level of education, both student learning outcomes in the cognitive, affective, and psychomotor domains. Therefore, one of the efforts to improve the quality of education can be pursued by increasing student learning outcomes at every level of education.

One of the determining factors for the success of learning in the classroom is learning media. Learning media as a learning tool that is useful for helping teachers convey messages and subject matter to students effectively and efficiently.

Physics learning is learning that links scientific theory and scientific experiments that support this theory. One of the teaching materials needed is the Student Worksheet. Based on observations made during apprenticeship activities at two different schools, researchers obtained data that in the learning process, teachers still use conventional learning methods. The teacher is the only source of information, and students only listen and record things that are explained by the teacher.

The use of worksheets in classroom learning has not been effective because worksheets are only used at certain times. One of them is when asking the teacher to ask students to solve the questions that have been available in the worksheet, and to do it in groups. As a result, students who have lower abilities to work on questions and choose to wait for answers from other friends. Students also stated that sometimes they did not understand the material being studied but did not want to ask questions because they were lazy.

Worksheets that are usually used during classroom learning are also not made by the teacher because the teacher does not have enough time to make worksheets. The worksheets in circulation only contain the title of the material, a summary of the material, and practice questions. The worksheet does not display the investigation activities that will be carried out by students but instead directly addresses the problem.

Even though currently teachers are required to teach more creatively and less boringly. To create this, teachers must be good at innovating in the use of learning models that suit the needs of students, and be able to use learning resources and teaching materials well so that students can understand the material well.

Learning models that can make students more active in terms of asking questions, finding their own answers, and carrying out investigations to solve problems during teaching and learning activities are inquiry learning models. Inquiry is a learning model that can make students more active in terms of asking questions, finding answers themselves, and carrying out investigations to solve problems during teaching and learning activities. (Wahyuni, Hikmawati, & Taufik, 2018).

The use of inquiry-based physics worksheets in learning is able to make students more active and increase the ability of students to observe, analyze, investigate, and solve problems that are already available so that learning is more student-centered.

Responding to the problems above, it is necessary “DEVELOPING OF STUDENTS WORKSHEET BASED ON INQUIRY IN CALOR AND CALOR MOVEMENT MATERIAL IN CLASS XI TEACHING YEAR 2020/2021.”

1.2 Problem Identification

From the background of the above problems, the following problems can be identified:

1. In-class learning rarely uses worksheets
2. Worksheets in school still do not meet the learning needs of students.
3. The available worksheets do not display experiment activities that students will undertake

1.3 The Scope of Study

In accordance with the background and problem identification, the problem boundaries that the researchers are doing are as follows:

1. Inquiry-based worksheets that will be developed in Physics learning is specifically for Temperature and Heat material
2. Worksheets include learning activities in analyzing, studying, and solving problems.
3. Inquiry worksheet trials will be developed, carried out by expert testing, and direct trials in learning.

1.4 Formulation of The Problem

Based on the limitations of the problem above, the formulation of the problem in this study is stated as follows:

1. What is the feasibility level of the Inquiry-based Class XI Physics Worksheet on the Temperature and Heat material developed?
2. How do teachers and students respond to the Inquiry-based class XI Physics Worksheet on the temperature and heat material developed?

1.5 Research Purpose

The objectives of this study are:

1. Knowing the feasibility level of Class XI Inquiry-based Physics Worksheet on Temperature and Heat material developed.
2. Knowing the responses of teachers and students to the Inquiry-based Class XI Physics Worksheet on the temperature and heat material developed.

1.6 Benefits of Research

The benefits expected from the results of this study are:

1. Provide an alternative guide for teachers in carrying out Inquiry-based Worksheet learning activities on Temperature and Heat learning.
2. As reference material for future researchers who wish to research the development of inquiry-based worksheets.
3. This developed worksheet can be used as a supporting medium for teachers and students in active learning activities.

1.7 Operational Definition

Operational definitions are given to avoid different perceptions of existing terms, namely:

1. Development research is a research design that aims to develop and validate educational products. (Borg and Gall in Moh. Yamin,2013: 96)
2. Student worksheets are student guidelines that are used to carry out investigative or problem-solving activities for the development of all aspects of learning in the form of experimental or demonstration guidelines. (Trianto,2009).
3. Student Worksheet Development Research is research that aims to develop and validate worksheets that will be used in learning activities for problem-solving in developing aspects of learning.