

CHAPTER I

INTRODUCTION

1.1 Background

Education can be defined as a process with specific methods to gain knowledge, understanding, and how to behave according to their needs. In a country's life, education plays an essential role in ensuring the survival of the state and nation because education can improve and develop the quality of Human Resources (HR). Education is a means of preparing the quality of education by improving the teaching and learning process.

Education, especially schools, must have a learning system that emphasizes a dynamic process based on efforts to increase students' curiosity about the world of education. Education must design student-centered learning so that students' social interests and activities continue to increase. By learning, students' abilities will increase. (Prasetyaningrum et al., 2013).

Government Regulation Number 20 of 2003 concerning the National Education System, it is stated that education is a conscious and planned effort to create an atmosphere of learning and its potential to have religious spiritual power. Self-control, personality, intelligence, noble character, and skills needed by him, the community, the nation and the State.

Teachers can organize facilities, equipment, teaching aids, time, and content to achieve learning goals as effectively as possible and link objectives and procedures to the overall objectives of the subjects are taught. Also, the teacher can be helped in planning class motivation, questions, and meaningful discussions that may be needed. Therefore, the ability to make lesson plans is a first step that teachers and prospective teachers must have and an estuary of all theoretical knowledge, fundamental skills, and in-depth understanding of learning objects and learning situations.

To improve teaching and learning quality, especially mathematics, efforts are needed to improve teachers, students, the materials used for learning, and the

interactions between them. In order for the learning objectives to reach the target well, it is necessary to have methods and strategies used. As professional teaching staff, teachers must prepare themselves optimally before carrying out learning in class. The preparation is outlined in the form of learning tools.

Human life can change every second. This change can lead to both positive and negative aspects, and this change has not only occurred in the increasingly modern changes in science and technology, but has also begun to spread into the world of education. With changes in the world of education, a teacher is required to further hone and explore his / her abilities in educating and educating the nation's children.

So it is hoped that with changes in the progress of the times in the field of science and technology, it will also support progress and changes to the positive aspects of education. Therefore, this article will discuss learning innovations carried out by teachers during a pandemic. With this article, it is hoped that a teacher will be able to create learning innovations, so that learning is not monotonous, and students gain more maximum knowledge and experience.

In this era of globalization, advances in science and technology are increasingly advanced and modern. The advancement of science and technology can have both positive and negative impacts. This can be positive if we can make the best use of the advancement of science and technology, and we use it to develop and advance education, especially in learning. Conversely, if we can only stay silent in the midst of the development of science and technology, this science and technology will also destroy us.

In addition, teachers tend to be imitators rather than inventors. For example, many teachers in the era of globalization with the advancement of more modern science and technology, still use strategies, methods, and learning media that have existed from ancient times, to used now. So that this causes laziness for teachers, to create new things in learning. And the learning carried out will feel bland, monotonous and not dynamic. Therefore, educators must be able to create innovation in the learning process so that students feel motivated, excited and

excited to participate in learning, and the material presented by the teacher will be more optimally absorbed and accepted by students.

In the current pandemic era, a teacher must be able to use learning media as creatively as possible. Because basically every lesson so that goals can be achieved, it takes teachers, instructional media and students. The role of the teacher here is very important because the teacher is the person who will transfer knowledge to their students. And a teacher is required to be able to use learning media that is in accordance with the conditions and conditions that are now completely online so that learning can be carried out effectively and efficiently.

From the results of my interviews with class XI students at SMA Negeri 10 Medan, it is known that there are limitations to learning media, especially during a pandemic like today. Lack of interactive and fun learning media results in distance learning being less effective. Mathematics learning in the school is short of innovation. Just using Google Classroom as the way to deliver the material without online meeting or something like that.

One of the changes that teachers can make is to develop a model or method that is right for the learning process. Creative teachers will always create ideas in designing new learning systems that allow students to achieve their learning goals with satisfaction. To obtain this new learning system, a learning system development research method is needed. The learning system's research and development stage can be analyzed from a series of teacher duties in carrying out main tasks ranging from designing to implementing to evaluating learning.

Based on the characteristics of the subject matter and the student's condition, the Teams Games Tournament learning model is an alternative to improve student learning outcomes. To overcome individualism, according to Purnamawati et al. (2014) that the TGT model is one type of cooperative learning model that places students in study groups consisting of 5 to 6 students who have different abilities, gender, and syllables or races. The teacher introduces the subject matter, and students work in their respective groups. To ensure that all

group members have mastered the lesson, all students will be given academic games

The media used in this study were “Canva” and “Kahoot!” . Kahoot! is a game that is easy and interesting and has differences in terms of answering techniques. Then Canva is a unique learning video design, easy to use features, and attractive icons. Thus students can be motivated and interested in learning to improve student’s problem solving ability (Purnamawati et al., 2014).

Of the several existing learning models, TGT learning or Team Games Tournament is one of the right models to be developed in order to help students develop the concept of the material obtained by TGT learning involving all students’ abilities in investigating their discovery abilities systematically critical logically and learning analysis can be considered appropriate is one of them is learning with the TGT model

Learning media can also help students improve their understanding of presenting data by engaging between believing in facilitating data interpretation and utilizing data. This shows that the use of technology has a positive effect on student with the various Canva and Kahoot! can be used as a medium for learning mathematics to demonstrate or socialize mathematical concepts so that it can improve mathematics learning outcomes in the learning process

From the description above, it can be seen that the role of the teacher as a facilitator is also very important to achieve the expected learning objectives by developing learning tools using software as a supporting technology medium in accordance with the expected model, namely the TGT learning model which aims to improve student’s problem solving ability skill on the above problems, it is necessary to develop learning tools based on good problems in accordance with the steps and appropriate device development models based on the thoughts described above, the researchers are interested in researching about:

“THE DEVELOPMENT OF LEARNING MEDIA ORIENTED TO TEAM GAMES TOURNAMENT LEARNING MODEL USING CANVA AND KAHOOT! TO IMPROVE STUDENT’S PROBLEM SOLVING ABILITY IN SMAN 10 MEDAN”

1.2 Problem Identification

Based on the background of the problems above. Then the problem identification is as follows :

1. The media used in this school to monotonous.
2. Mathematics learning becomes boring.
3. Teachers have difficulty and are not accustomed to compiling their own learning materials and tools in accordance with the learning objectives.
4. Teachers do not prepare learning tools well so that learning has not been effective.

1.3 Problem Limitation

Based on the background and problem identification above, the problem boundaries in this study are the learning model is Team Games Tournament (TGT) type of cooperative learning. Material used and develop in this research is Sequences in class XI based on the 2013 revised 2017 curriculum. Product development trials are conduct to test feasibility of this media.

1.4 Problem Formulation

Based on the background of the problem, problem identification, and problem limitation, the problem formulations put forward in this study are:

1. How is the process of developing learning media assisted by Canva and Kahoot! in improving student’s problem solving ability?
2. Is the learning media suitable for use in the teaching and learning process?
3. Are the learning media developed using the TGT learning model assisted by Canva and Kahoot! in improving student’s problem solving ability?

1.5 Research Objectives

In line with the formulation of the problem that has been stated, the research objectives to be achieved in this study are:

1. To know the process of developing learning media assisted by Canva and Kahoot! in improving student's problem solving ability.
2. To know that the learning media is suitable for use in the teaching and learning process.
3. To know that the learning media developed using the TGT learning model assisted by Canva and Kahoot! is improving student's problem solving ability.

1.6 Research Benefits

The results of this research are expected to provide benefits to education in general and biology in particular, both theoretically and practically.

1. Theoretical Benefits

Adding knowledge in education regarding the use of interactive media "Kahoot!" with the help of "Canva" as a learning medium and mathematics learning design, especially series material for 11th students.

2. Practical Benefits

Providing input for teachers to design interesting concepts and teaching materials using the "Canva" software as a design tool and using "Kahoot!" as an interactive medium. As a consideration for studying in the Covid-19 pandemic era and in the future. In order to create a class that is interesting, fun and memorable for both teachers and students

