

CHAPTER I

PRELIMINARY

1.1 Background

Learning is an activity that involves interaction between teachers and students to distribute knowledge. The word learning is taken from the word 'ajar' plus the prefix 'pe' and the suffix 'an' to become the word 'learning', defined as a process or method that causes students to want to learn (Susanto, 2019: 19). Learning is carried out to achieve the goals expected by both teachers and students. According to Law Number 20 of 2003 concerning the National Education System, it is stated that learning is a process of interaction between teachers, students, and learning resources that takes place in a learning environment with the aim of helping students develop all their potential and abilities in the form of religious spiritual knowledge, controlling self, personality, intelligence, noble character, and all forms of skills needed by themselves, society, nation and state. So, learning is an interaction between teachers and students in a learning environment so that students can learn well.

Learning is an activity with the hope that students can achieve maximum learning goals. Therefore, the teacher as the main factor in the occurrence of learning in the classroom needs to present a learning that is not monotonous, fun, and interesting for students so that messages and materials in learning can be conveyed properly. Based on Government Regulation Number 32 of 2013 Article 19 Paragraph 1 which states that learning in educational units must be carried out interactively, inspiring, fun,

challenging, and motivating students to play an active role and provide sufficient space for creativity and independence of students according to their talents, interests and the psychological development of each student. Based on the statement above, each student has different characteristics and developments, the teacher must understand every difference that students have by conducting fun learning so that students are motivated to learn, especially in learning mathematics.

Mathematics is a science that has an important role in various disciplines because every concept contained in mathematics can be applied in everyday life and is useful for human life. Mathematics is one of the compulsory learning at the education level for students to learn, because mathematics has an important role in the lives of students in the present and in the future. Rahman (2018:1) states that mathematics is one of the subjects considered difficult by some students, these difficulties occur because of certain obstacles for students to achieve maximum learning outcomes. Most high school students experience difficulties in learning mathematics teaching materials, this is due to the different characteristics of students and the characteristics of abstract mathematics teaching materials (Mutammam and Mega, 2021: 2). In connection with the statement above, the teacher must know any difficulties, problems, or the obstacles faced by each student in learning mathematics, the teacher must be creative in providing fun mathematics material for students.

The implementation of mathematics learning can be said to be successful if teachers and students have readiness in carrying out learning. Teachers must make careful learning plans by making choices about models, strategies, approaches, and learning media that are in accordance with the characteristics, needs, and

mathematical materials that will be taught to students. Ansari (2012) in (Hodiyanto, 2017:10) reveals that some research results show that students' understanding of mathematics during learning is not good due to several things, such as, (a) the dominant teacher explains the material and provides examples of how to solve math problems, (b) students tend to learn only by listening and watching the teacher solve the math problems, and (c) the teacher is used to giving questions according to the examples that have been given.

Based on the results of interviews and observations in the field on May 21, 2021, it shows that the Class X teacher of MAN 1 Deli Serdang is not yet skilled in making creative and fun mathematics learning media, teachers tend to never use media in carrying out mathematics learning. Mathematics learning in schools is carried out by conveying material orally to students, providing examples of questions related to the material, then the teacher directs students to solve problems according to the examples given. The habit of teachers in carrying out mathematics learning as stated above tends to be monotonous and causes students to feel bored, have difficulty, and have no interest in carrying out learning.

Mathematics learning in Class X consists of several materials, therefore each material taught must be packaged as attractive and creative as possible, so that students are always motivated and enthusiastic in participating in learning, besides that it is hoped that the objectives of learning mathematics can be achieved optimally. Basically, the success of learning mathematics is influenced by internal factors and external factors, internal factors are factors that come from the students themselves in the form of students' motivation and interest in learning, while external factors are

factors that come from outside the students, one of which is the learning media used as a factor of support in learning mathematics (Husna, 2021:1-2). Learning media has a very important role in learning mathematics, because learning mathematics requires concrete objects to make it easier for students to understand abstract material. Based on the problems in learning mathematics that have been stated above, it is necessary to have a solution to improve the learning process in learning mathematics. One effort that can be done is to develop learning media for learning mathematics.

Learning media is everything that can be used to convey messages and information in learning so that it can attract students' interest and attention to take part in learning. Learning media is one of the intermediaries to help the learning process in the form of delivering information contained in learning to stimulate students (Husna, 2021: 2). Further Mahardika et al. (2021:276) reveals that learning media is a tool in the form of physical and non-physical that can be used as an intermediary between teachers and students to deliver effective and efficient learning. With the existence of learning media as a tool to deliver and distribute each material in learning, it is possible for students to carry out effective and efficient learning so that the student learning environment is more conducive.

Learning media has a very important role as an effort to improve the quality of education. Hapsari and Zulherman (2021:23) reveal that there is a need for renewal in learning, during a pandemic, teachers are required to be more creative in designing learning. Mahardika (2021:277) revealed that the development of interesting learning media can help students to understand the material being taught

because it has two-way communication. The development of learning media can be done by using Canva application, so that the results of developing learning media can be interesting, creative, and fun for students.

Canva media is a learning media with the help of an online-based Canva application that provides a variety of attractive designs, in the form of templates, features, and categories contained in it. Using an attractive design on the Canva application makes learning media fun for students. The use of Canva learning media can make it easier and save teachers' time in designing learning media and make it easier for teachers to explain each learning material (Hapsari and Zulherman, 2021:2386). Rahmatullah (2020: 319-320) reveals that Canva is one of the online applications that can be used to create learning media. In Canva application, there are various templates that can be used, such as presentations, mobile first presentations, videos, logos, wallpapers, reports, and so on that can be used in making learning media. The explanation above is also supported by the statement of Tanjung and Faiza (2019) in (Hapsari and Zulherman, 2021:2386) which states that Canva media can make it easier for students to understand learning because Canva media can display text, video, animation, audio, images, graphics, etc. according to the appearance desired by the teacher and can make students focus on paying attention to the lesson because of the attractive appearance of Canva's learning media. Canva can be used as an alternative in making mathematics learning media.

The wide variety of templates in the Canva application can make it easier for teachers to develop learning media according to their needs and the material to be taught. Canva media can be used as an alternative application to develop learning

media because it has several advantages, namely, (a) teachers save more time in making learning media because there are templates that can be used immediately, (b) teacher creativity is improving in making interesting learning media, (c) there are many templates and designs that can be used to create learning media, (d) access to the Canva application even though it is online but free, so that teachers can create interesting learning media without spending a lot of money, and (e) the features found in the Canva application are not complicated for teachers to understand.

Based on previous research by Hapsari and Zulherman (2021), with the title of research on the development of Canva application-based animated video media to increase students' motivation and learning achievement, the results showed that Canva-based animated video media on style and motion materials could increase students' motivation and learning achievement, and suitable for use in the learning process after a trial to users (teachers) and students. Another study by Rahmatullah, et al. (2020), with the title Canva application-based audio-visual media research, obtained research results that audio-visual-based learning media with the Canva application are very suitable for use in learning, the use of Canva media is very effective both for face-to-face learning and online learning. Based on the background of the problem and relevant previous research results, the researcher is interested in conducting research with the title, "*Development of Canva Media in Class X Mathematics Learning at MAN 1 Deli Serdang Academic Years 2020/2021*".

1.2 Problem Identification

Based on the background described above, the problems that the researcher can identify are as follows.

- 1.2.1. Teachers are not yet skilled in making creative and fun learning media for students.
- 1.2.2. Teachers tend to never use media in carrying out mathematics learning.
- 1.2.3. Mathematics learning that is carried out tends to be monotonous, namely delivering material, providing examples of questions, and providing questions for students to work on.
- 1.2.4. Students feel bored, have difficulty, and are not interested in carrying out learning.

1.3 Scope

Based on the background and identification of problems that have been described, the scope of this research is as follows.

- 1.3.1. This research focuses on developing mathematics learning media using the Canva application.
- 1.3.2. This study focuses on mathematics for class X SMA/MAN students.
- 1.3.3. This research will be conducted at MAN 1 Deli Serdang for the Academic Year 2020/2021.

1.4 Problem Formulation

Based on the background and identification of the problems that have been described, the formulation of the problem in this study is as follows.

- 1.4.1. What are the stages of developing Canva media in mathematics learning in class X at MAN 1 Deli Serdang for the Academic Year 2020/2021?

1.4.2. What are the results of the Canva media feasibility test in mathematics learning in class X at MAN 1 Deli Serdang for the Academic Year 2020/2021?

1.4.3. How do students respond to Canva media in class X at MAN 1 Deli Serdang for the Academic Year 2020/2021?

1.5 Scope and Limitation

Based on the identification of the problem and the formulation of the problem that has been described, in this study it is necessary to limit the problem so that the study of the problem in research is more focused and can be measured. The limitations of the problem in this study are as follows.

1.5.1. The material presented in the learning media is adjusted to the 2013 Curriculum used in schools.

1.5.2. The material presented in the learning media focuses on mathematics subject material for students of class X SMA/MA.

1.5.3. The application used in making mathematics learning media is in the form of the Canva application, by utilizing templates, features, designs, and others.

1.5.4. The developed mathematics learning media is used as an alternative to learning to make it more fun for students to understand the material and mathematical concepts.

1.5.5. The product development model used in developing mathematics learning media is the ADDIE development model (Analysis, Design, Development, Implementation, and Evaluation).

1.6 Research Objectives

Based on the formulation of the problem that has been described, the objectives in this study are as follows.

- 1.6.1. Developing Canva media in class X mathematics learning at MAN 1 Deli Serdang for the Academic Year 2020/2021.
- 1.6.2. Testing the results of the feasibility of Canva media in mathematics learning in class X at MAN 1 Deli Serdang for the 2020/2021 Academic Year.
- 1.6.3. Describe students' responses to Canva media in mathematics learning in class X at MAN 1 Deli Serdang for the Academic Year 2020/2021.

1.7 Specifications of Developed Learning Media

The specifications of the Canva media in learning mathematics developed are as follows.

- 1.7.1. Learning media developed with a Canva application in the form of mathematics learning videos using templates, designs, features, and others contained in the Canva application.
- 1.7.2. The resulting Canva media consists of a menu of material identity (KI, KD, Indicators, and Learning Objectives), material delivery, sample questions, games, and evaluation questions.
- 1.7.3. The resulting Canva media is designed in a creative, interesting, and fun way equipped with audio, supporting music, games, environmental

exploration activities, and practice questions as well as evaluation questions.

1.8 Research Benefits

The development of Canva media in class X mathematics learning has the following theoretical and practical benefits.

1.8.1. Theoretical Benefits

Theoretically, the development of Canva media in mathematics learning in class X can attract students' interest in learning, the delivery of material by the teacher is more fun, learning seems more memorable and not boring. In addition, the development of Canva media can be used as a theoretical basis in developing learning media.

1.8.2. Practical Benefits

Practically, the development of media in in mathematics learning in class X has benefits for teachers, students, researchers, and other researchers. The practical benefits that can be obtained are described as follows.

1.8.3. For Teachers

Submission of mathematics subject matter by teachers can be done online or offline with the help of Canva media, teachers can present fun mathematics lessons so that students are interested and active in learning, teachers can know the importance of using learning media in every math material being taught so that messages and information contained in learning can be conveyed optimally to students.

1.8.4. For Students

Students are interested in participating in mathematics learning because learning is packaged creatively by the teacher, students are motivated in learning mathematics, students get direct experience so that students easily understand the material presented.

1.8.5. For Researchers

Researchers will gain insight into the importance of developing learning media that can be presented online or online, researchers will be proficient in using the Canva application, especially in developing learning media in other subjects and materials.

1.8.6. For Other Researchers

Canva media development research in mathematics learning in class X can be used as a reference by other researchers in conducting research on the development of learning media on different subjects or materials tailored to the needs of the research to be carried out.

1.9 Operational Definition

Operational definitions are needed in research so that there is no difference in understanding between researchers and readers regarding the definition of each term contained in the study. The terms in this study are as follows.

1.9.1. Research development is research conducted to develop existing products or create new products tailored to the needs and problems with

the aim of each problem can be solved with products that have been developed.

1.9.2. The Canva media in this study is a learning medium using the Canva application, which is an online application with various templates, designs, and features to make learning videos about math materials in class X.

1.9.3. Mathematics learning is one of the mandatory learning at the education level for students to learn, mathematics learning has an important role in various disciplines because every concept contained in mathematics can be applied in everyday life and is useful for human life.

