CHAPTER I

INTRODUCTION

1.1. Background

The development of science and technology at this time is growing so rapidly in all aspects of life, especially in the field of information and Communication Technology. The development of technology directly requires the world of education to adjust these developments in improving the quality of education to create quality human resources. Humans are technology users who can take advantage of current technology and subsequent technological developments. Humans also have to adapt to new technologies that develop through education. In the end, technology and education can develop together in rhythm (Nu'aimah, 2016).

Education is essential in producing nation-building successors with superior abilities, knowledge, and virtues and in building the country and nation. Teaching in Indonesian is always interesting to discuss, such as educational systems, curricula, institutions, and teacher competencies.

Human Resources (HR) quality has difficult issues as the new era begins in order to compete in the global era. Education is one effort that can be made to prepare high-quality human resources to be able to compete in this era of them. An important tool for bringing about change in human existence is education. A country's progress can also be measured or determined by its level of education. Education cultivates pupils' skills for specific reasons in this manner. Curriculum is a strategy or tool for achieving educational objectives. Education has continually made several attempts to create curricula at various levels. (Buchori, 2021).

One of the disciplines taught in secondary school is chemistry. Students may find it challenging to recognize and comprehend some concepts in the learning chemistry curriculum. Atomic matter is one of the subjects that students require assistance with. Teachers are therefore expected to develop the concept of the concept so that the pupils may accept and understand the provided atomic material correctly. In order for pupils to easily move on to the next learning material,

teachers must ensure that they have mastered the fundamental chemical principles and have a solid comprehension of them. But in practice, a lot of students still require assistance in comprehending atomic stuff.

Learning materials are materials identified with deliberately arranged information based on students' capacity to master learning. Learning materials can be poured into a learning medium. According to Suardika (2016), video learning is a shared medium with learning messages that combine principles, thoughts, strategies, and application theories to build a deeper understanding of learning material. One of the attributes of learning videos is animation. Animation is a series of drawings and writings accompanied by movement (Anggriani, 2019). According to Al Farizi et al. (2019), animation is used in learning media because of two things, namely, to attract attention and strengthen motivation. Video animation can show abstract material to be more authentic (Kusuma et al., 2021).

Abstract material in chemistry lessons is atomic structure. This atomic structure cannot be seen directly by the naked eye. Name atoms come from a-tomos which in Greek means indivisible (Brady, 1999). The concept of atoms was first explained by Democritus, who explained that everything could be separated into a minor matter called Atoms.

If educators, students, and learning resources work together harmoniously, a teaching and learning process can be successful. Learners are required to investigate new material from a learning source with the assistance of educators who serve as facilitators in order to increase comprehension and knowledge. The media is crucial for teachers to use in the learning process since it can help students who are unsure of the material being presented during learning activities. Learning media can symbolize anything that isn't as good at putting the teacher into words. Learning media is any kind of communication that conveys information or a message for educational or teaching objectives (Fawaiddah and Sukarmin, 2016).

Media is a component of learning resources or physical vehicles that contain instructional materials in a learning environment that can stimulate students to learn. Learning media is everything that can be used to channel learning materials

to facilitate the attention, thoughts, interests, and feelings of students in learning activities to achieve specific learning goals (Rodhatul, 2009).

PowerPoint with hyperlinks is one of the learning tools that can be utilized to generate engaging learning materials. Teachers can quickly click on the relevant segment of a PowerPoint presentation that uses hyperlinks to describe the atomic material being taught to pupils. If they want to pose a question about a subject in one medium, students can also make it simpler for professors to discuss the subject. The teacher can make sure that the students have a solid understanding of the atomic material by linking the question in the hyperlink to the teaching exam. Teachers can add supplementary movies to PowerPoint presentations with hyperlinks to help them explain atomic information to students and engage them in the process.

Microsoft's PowerPoint program has become well-known for making and viewing computer presentations. These presentations often consist of a lecturer showing a succession of "slides" to the audience on a computer, projector, or screen, or of a person using a computer at her desk to show a sequence of screens. Increase. By clicking on a specific word, form, or image, PowerPoint's "hyperlink" feature, on the other hand, enables users to move from one slide to another within the presentation. Additionally, hyperlinks can "connect" electronically text or images to slides in a whole other presentation, websites, email addresses, or other file formats. Therefore, compared to a sequence of slides alone, hyperlinks might offer a more dynamic and interactive experience. This article will guide you through the steps necessary to create hyperlinks and integrate them into your PowerPoint presentation in various ways. This article assumes that you are new to creating hyperlinks but have a basic understanding of the PowerPoint software, including entering text, images, and shapes into your slides. Many excellent articles are available as tutorials on how to create effective PowerPoint presentations.

Based on the background of the above problems, the research will be conducted entitled “D**evelopment of Hyperlink-Based Learning Media to improve student learning outcomes on atomic material**”

1.2. Identify the Problem

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

1. The development of Science and Technology (Science and Technology) in the era of globalization to assist students in following the independent curriculum.
2. To determine the influence of hyperlink-based learning media to improve student learning outcomes.
3. Student learning success in the subject of chemistry.

1.3. Scope

The scope of this study is:

1. This study discusses the development of hyperlink interactive multimedia learning media on atomic materials.
2. This study discusses the feasibility of hyperlink interactive multimedia learning media on atomic materials.

1.4. Formulation of The Problem

Formulation of the problem to be studied is:

1. How is the feasibility of hyperlinked interactive multimedia learning media on atomic material?
2. Is there an improvement in specific student learning outcomes after the use of hyperlinked interactive multimedia learning media on atomic material?

1.5. Problem Limits

To avoid widespread problems in this study, it is given the following problem limits:

1. Learning Media developed in the form of hyperlink-based power point media.
2. The presented matter includes only atomic matter.
3. The use of hyperlinked interactive multimedia learning media on atomic materials developed by researchers and validated by experts.

1.6. Research Objectives

The study was conducted with the following objectives:

1. To determine the feasibility of hyperlinked interactive multimedia learning media on atomic material.
2. Knowing the response of students to interactive multimedia learning media hyperlinks on atomic material.

1.7. Research Benefits

The expected benefits of this study are

1. For Students

   To improve student learning outcomes on atomic matter
2. For Researcher

   To add insight and experience for researchers personally as a prospective teacher of chemistry in terms of making interactive learning media to improve student learning outcomes.
3. For Teacher

   As a reference develop learning media so that students can be more interested in learning so that they can understand chemistry well.
4. For School

   Improving the quality of schools in improving student learning outcomes and teacher performance in schools.
5. For advanced students and researchers

   As information for advanced researchers in order to develop better learning media Research in the future.

1.8. Operational Definition

1. Learning Media Development

   Development of Learning media is an effort or process undertaken to produce a learning media based on existing development theory.
2. Learning Media

   Learning Media is a physical means to convey content or learning materials such as videos, books, films, slides, and so on.

3. R&D Model

The Borg & Gall Model is a type of research and development method. The Borg and Gall development Model have 10 implementation steps: (1) research and information gathering, (2) Planning, (3) developing the initial product Form, (4) initial field trials, (5) major product revisions, (6) major field trials, (7) operational product revisions, (8) operational field trials, (9) final product revisions, and (10) socialization and implementation.