

# CHAPTER I

## INTRODUCTION

### 1.1 Background

Learning resources are very accessible and obtainable anywhere. In this era, students are very easy to get the source to learn a material. However, it is unfortunate that student reading interest is not as high as the facility of obtaining learning resources. University of North Sumatera Sociologist, Prof. Dr. Badaruddin, MA stated if reading interest in Indonesian children needs to be improved again to gain better reasoning and have adequate intelligence (Sasongko, 2016).

Critical thinking is the most important point for a nation to be advance in educational field and qualified to compete with other countries. Without an adequate literacy culture, Indonesian students will not be able to develop imagination and expand a prospective. They grow into a person with narrow mind and poor imagination (Hasan, 2017). This is quite concerned because in this era, not only students have low reading interest but Indonesians are also said to tend to have low reading interest.

Indonesia's reading index according to UNESCO (2012) is only 0.001. Means, among 1000 people, there is only one person who read seriously. In addition, the survey notes from the Most Literated Nation in The World (2015) put Indonesia at 60<sup>th</sup> place from 61 countries (Kusuma, 2017). This shows that Indonesians have a low reading interest. A low reading interest can also be attributed to poor learning comprehension. This is due to the low reading interest so that the critical thinking of a material is also low. In addition to low reading interest among students to society, at the same time they have started to switch to animated media such as television or educational videos. This is because the media is more interesting, simple, and instant. The National Social and Economic Survey (NSES), which has been conducted by the Central Bureau of Statistics (CBS) until 2015 shows a tendency of increasing television viewers up to 91.5% while newspaper readers only 13.1% in 2015, or the lowest recorded by CBS since 1984 (Solihin, 2017).

However, according to research with Benferroni Test it was found that the memory performance of "reading" is much more effective than watching. On that

basis, reading interest should be emphasized on students to have more effective memory performance in order to facilitate the learning process (Mesbah, 2005).

Data that can be a parameter to understand the issues surrounding this reading interest, namely the number of school library data. We take data at the primary school level (public and private), from 147,503 new schools there are 90,642 libraries, the percentage reaches 61.45%. However, this data is still shrinking again because of that data, the condition of libraries which are free from minor damage, only total 28,137, or remaining 19% compared to the amount of schools or 31% compared to the amount of high school libraries (Solihin, 2017).

Library condition in SMAN 1 Berastagi is categorized as well maintained but lacks of students initiative in utilizing the facility for learning utilities. The number of students who come and read in the library is less than 50%. The minimal budget allocated by the government has resulted in limited Chemistry books in the school library. In fact, not a few libraries are supported by 0 rupiah budget. Even though the Library Law requires every school to allocate a minimum of 5% of the APBS for libraries, the reality in the field is almost unchanged and students are not required to have their own books so that students have difficulty in obtaining information sources and working on questions provided by educators. This is a problem, so additional information sources should be provided by educators to students considering the importance of reading interest in the learning process. One of the ways that educators can do is to develop teaching-material based literacy through scientific articles media that have been developed in a more interesting and simple form when compared with a thick text book. With this method can be sure every student has an article provided by educators. In addition, to providing scientific articles to students, it can also prepare high school students to open up a bit of their knowledge of higher education such as lectures that use scientific articles up to make scientific articles during the learning process.

The power of literacy and being part of a global literacy society is sometimes underestimated. Other works still relate to the importance of maintaining society in country in a strong literacy culture. People's behavior towards the world of literacy becomes a very important factor in individuals' success and nations in economics and other fields that do require an adequate knowledge base. Loving the literacy world also determines the future of our world (Hasan, 2017). Considering of global competition in education is channeled through literacy, the reading interest and

comprehension of students needs to be improved starting from high school. Based on the problem above, the writer conducts research with the title *“Development of Science Literacy Based Teaching Material for Grade X High School on Chemical Nomenclature”*.

### 1.2 Problem Identification

Based on the background that has been described, then there are issues that are important to be studied and researched. As for the identification problem in this research as follows:

1. Low reading interest in SMA/MA students in Indonesia
2. The influence of reading towards SMA/MA students comprehension in Indonesia
3. The development of Chemistry teaching-material based literacy towards SMA/MA students in Indonesia

### 1.3 Problem Scope

In order for this study to provide the right direction, the problem needs to be limited as follows:

1. The research was conducted at SMAN 1 Berastagi
2. The research is limited to Chemistry subject of Chemical Nomenclature Grade X which refers to K-13 content standard
3. The research is focused on reading interest of students Grade X on Chemical Nomenclature
4. The research is focused on the level of students' comprehension Grade X on Chemical Nomenclature

### 1.4 Problem Formulation

Based on the background, problem identification, and problem scope, then the problem formulation in this research as follows:

1. How is the advisability level for books used in schools nowadays?
2. Are the learning outcomes of students who use literacy science-based books higher than students who use books in school?

### 1.5 Research Aims

The aims of this research are:

1. To get the results of development of science literacy based teaching material for grade X high school on Chemical Nomenclature that is appropriate to be used.
2. To find out the advisability of literacy based teaching material (article).
3. To find out the significant influence of development of science literacy based teaching material for grade X high school on Chemical Nomenclature towards student learning outcomes.

### 1.6 Research Benefits

The expected benefits of this research are:

1. Adding the knowledge and experience of the researcher to develop Chemistry teaching-materials Grade X SMA literature-based
2. To obtain a decent and interesting literature-based Chemistry teaching-materials to assist Grade X SMA students in learning Chemistry
3. To contribute ideas and reference materials for teachers, prospective teachers, managers, developers, educational institutions, and further researchers who wants to examine more deeply on result of literature-based Chemistry teaching-materials development
4. Provide consideration and alternatives for teachers and schools on the importance of literature-based Chemistry teaching-materials