

CHAPTER I

INTRODUCTION

1.1 Background

Nowadays, the Government of Indonesian Republic through The Ministry of Education and Culture has been applied the National Curriculum of 2013 which consist of 4 (four) core competencies, and in the learning process using the special approach, known as scientific approach. Therefore, the requires of learning tools which support the implementation of Curriculum of 2013 are needed. One of the learning tool which is widely used is coursebook. From the result of research that conducted by Ariningrum (2013), proves that the coursebook is one of the important variables that support the learning process, curriculum, and learning instruction, especially in developing countries to increase the scientific skills of students.

A coursebook provide teaching in a field of study, designed for class using, generally known as textbook, material book, or study guides book. Coursebook is prepared by the flow and logic according to the lesson plan. A coursebook is arranged according to the need of students learning. Coursebook is designed to achieve specific learning aims or specific competencies (Permendikbud RI No. 02 Tahun 2008 Pasal 1(3)). Therefore the preparation of coursebook should be based on the curriculum (Sudjana, 2009), in this case is the Curriculum of 2013.

According to preliminary research which done in Medan city was found 5 (five) Senior High Biology books have been referring to the Curriculum of 2013. These books been escape from National Education Standards Agency or in bahasa known as *Badan Standar Nasional Pendidikan (BSNP)*. The analysis of the fulfillment of the standard content of the coursebook includes: 1) contain the learning aims; 2) contain the information that logic with good language; 3) contain interesting concepts; 4) presenting in interesting form. Yet undiscovered books which arranged systematically according to the scientific steps. Those coursebooks only contains the materials, also bunch of question for practice and have no referral to perform the learning activity that expected to help students to build the concepts being taught. So it's need to develop a scientific approach-

based coursebook in the learning activity that could be used both by teacher and students.

Scientific Approach is an approach that oriented or focused on the student (student center approach) and conducted by five steps of learning relevant to the learning theory of *Bruner*, *Piaget*, and *Vygotsky* those are observing, asking, information collecting, associating and communicating (Rahayu, 2016), as well as focused on the dimension of modern pedagogic to the learning methodology, namely learning that touch on three areas, known as : attitude, knowledge, skills. Thereby, the learning process with that approach is expected to create learning achievement and express the seedling student who creative, innovative, productive as well as affective by passing the strengthening of attitudes, skills and knowledge wich are integrated (Materi Belajar, 2016).

The learning process with Scientific Approach geared to “seek out and do something”, so the learners can build their own concept of what is taught by seeing the surrounding environment. Sujarwanta (2011) also show by using the scientific method, the scientists are trying to let the reality spread out, to discuss the supporting theory when the prediction is proved not tested. Gagne in Surjawanta (2011) also states that by developing of scientific skills, student would be made creatively, capable to find and develop their own fact and concept, as well as foster and attitude develop. Therefore, scientific approach is very important to apply in learning process, especially in biology learning.

As we know, the scientific approach has been introduced in Curriculum of 2006 and the implementation was un-maximum, so the successful of the implementation of Curriculum of 2013 also determined by the availability of teaching materials such as coursebook which fit by the need of the implementation of scientific steps. In fact, according to a research of evaluation that conducted by Puslitbang Kebudayaan, 13.78% of teacher do not understand the substance of the coursebook yet not understand the relationship of learning activity by the source of media/tools of learning and the competences that developed (Puslitbang).

Based on the background described above, it is need to develop of High School Biology coursebook that contained learning steps in accordance with the

scientific approach. The development of coursebook is really important made by the teacher for the learning that more effective, efficient, and also accordance with the competences to be achieved. If not, it is concerned that there are some differences of perception of biology teacher on the implementation of the scientific approach in teaching biology in high school.

As a result, the developing of biology coursebook (teacher coursebook) is done in this research, which containing the operational steps of each step of scientific approach in accordance to the demands of Curriculum of 2013. According to Widyanarti (2011), the development of the coursebook is useful to 1) improving the knowledge, 2) improving the curiosity, 3) improving the critically thinking, 4) practice the patience, 5) improve the social skills.

1.2 Problem Identification

According to the background above, problems which identifies are :

1. Students Biology Coursebook which used by schools in the city of Medan is still contain the learning material (*content based*) and not fulfill the implementation of scientific approach steps.
2. Technical guidelines of scientific approach implementation for Biology subjects, especially the subject matter of Animal Kingdom is yet no available.

1.3 Problem Scoping

According to the problems that identified, the problems of this research are limited as follows:

1. The development of coursebook which will used by teachers as the guideines Biology learning by scientific approach.
2. The subject matter which developed is scoped on Classification of Animal.
3. The development of the products using the 4D model that are *define, design, develop, and disseminate*. In this research the steps only held to the development stage, namely until small group test stage.
4. The quality of coursebook would evaluated by experts (lecturer), practition (teacher) and students who've learnt the animal classification topic.

1.4 Research Question

1. Does the coursebook which developed would get good scores in accordance to the need of Scientific Approach according to the experts (lecturer)?
2. Does the coursebook which developed would get good scores in accordance to the need of Scientific Approach according to the practitioner (teacher)?
3. Does the coursebook which developed would get good scores in accordance to the need of Scientific Approach according to the students?

1.5 Research Aim

Generally this study aims to develop Biology Coursebook of X Grader Senior HighS according to the scientific approach. Specifically, this study for:

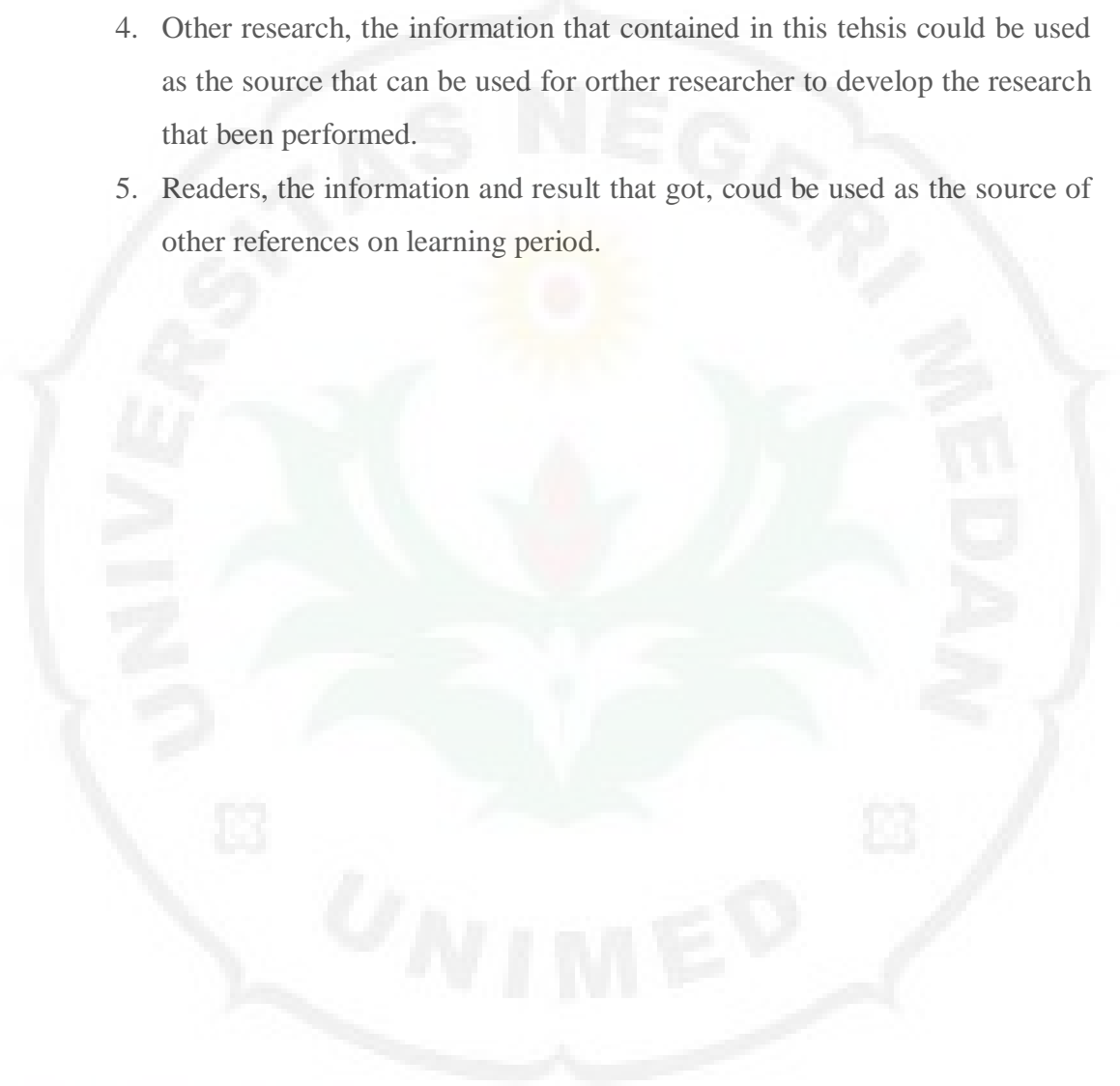
1. Produce a coursebook of Animal Classification for X grader of High School which developed get the good scores in accordance to the Scientific Approach according to the experts (lecturer).
2. Produce a coursebook of Animal Classification for X grader of High School which developed get the good scores in accordance to the Scientific Approach according to the practitioner (teacher).
3. Produce a coursebook of Animal Classification for X grader of High School which developed get the good scores in accordance to the Scientific Approach according to the students.

1.6 Research Benefit

The result of this research, are expected could assist for all people who'd like to get the information, those are:

1. For teacher, the product of this research could be use for the guidance of the implementation of scientific approach on Kingdom of Animal subject matter in X grader of High School.
2. For student, the coursebook which produced from this research could guide the students to be actively in learning process by following the scientific learning steps that has developed.

3. For school, the result of this research could be used for the example of the quality increasing of learning that can be performed and applied in class
4. Other research, the information that contained in this tehsis could be used as the source that can be used for orther researcher to develop the research that been performed.
5. Readers, the information and result that got, could be used as the source of other references on learning period.



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