CHAPTER I
INTRODUCTION

A. Background of the Research

The advance of technology is growing all the time. It can happen so many changes and developments of information in a glance. Ready or not, this situation will continue to run and demand self-development. Theory and the experience become very important for children learning process to prepare themselves in facing the future with a million new complex problems.

Theoretically learning does not make the students really know what they learn. It only equips students with the basic and a little illustration to solve problem theoretically.

Biology as a science which learn about living things, obtained through a process of investigation / research using scientific method. Scientific method is the steps used in gathering information to solve problem, which include: 1) the ability to find problem, 2) to find alternative solution, 3) making hypotheses, 4) designing the study or experiment, 5) control variable, 6) measurement, 7) organize and explain data, 8) make the conclusion, 9) communicate the results of research or experiment, either orally or in writing (Anonim, 2003: 15).

Based on the above explanation, in learning Biology needs a method that will make students have a scientific attitude in the field of biology. Based on the result of observation, known that during this time the Biology learning
only uses conventional learning model or lectures, and it is not supported by the adequate infrastructure such as such as unavailable laboratory that has been an obstacle in practicum. In addition, according to Saptono (2003) in developing of biology learning, the teacher should realize that biology is not just a collection of fact or concept, as in biology has a collection of processes and values that can be applied and developed in real life. One activity implements the scientific method in the Biology learning is doing practical activity in the laboratory.

Development of process skill in the Biology learning requires an experiment and observation. These activities will help students to understand the material and will assist in the mastery of biological concept.

Science lab is a place where teacher and student do experiment and research. By studying the science material directly, the student will be easy to understand the material.

To optimize the function of science lab, the activity in the science lab should be guided by scientific measures or which is called scientific method, moreover the laboratory is expected to develop the creativity of learning subject. Most of learning material is still developed in verbal form. The teacher only describes and tells an abstract material while the students do not experience it but get indirect data from teacher, books, photographs and available pictures, two-or three-dimensional model, and others. To make the subject matter especially science material easy to be learned by students, need to gain direct experience or knowledge. First-hand experience should take the
first attention. Laboratory work is an activity that allows the subject learning to obtain first hand data or directly data (Saparudin, 2003: 105).

According Djumpri Padmawinata (in Saparudin, 2003: 49), Laboratory Science is a place where teacher and student do experiment and research. To make the students can use the laboratory optimally, the laboratory condition also need to be pursued to stay clean and comfortable. Good laboratory condition has several requirements, including: the presence or absence of organization and administration of the laboratory, the completeness of the room, furniture, arrangement of equipment and material, cleanliness and neatness as well as the safety of laboratory work.

In terms of utilizing laboratory there is a difference between each of the Junior High School. This is caused by differences the availability of infrastructure as well as the time. Such differences may affect the intensity or amount of biological lab activity that can be done. If the lab activity is not done according to the curriculum, some learning goals can not be achieved by the students and this can affect their learning outcomes. According Rustaman (2003: 29) the use of a laboratory (lab) is an integral part of teaching and learning science, including biology. This shows how important the role of laboratory activity to achieve educational goals of Science.
B. Research Focus

The focus of research is how the characteristics of laboratory-based Biological learning management at SMP Negeri 2 Magelang? The focus is described into three sub focus, as follows:

1. How are the preparation and interior design characteristics in the laboratory-based Science learning?
2. How are the material characteristics of the laboratory-based biology learning at SMP Negeri 2 Magelang?
3. How are the students’ interaction characteristics in the laboratory-based biology learning at SMP Negeri 2 Magelang?

C. Research Objectives

1. To describe the characteristics of students’ readiness and interior design of the laboratory-based Science learning at SMP Negeri 2 Magelang.
2. To describe the teaching material’s characteristics of the laboratory-based biology learning at SMP Negeri 2 Magelang.
3. To describe the students’ interaction characteristics in the laboratory-based biology learning at SMP Negeri 2 Magelang.

D. Benefits of the Research

1. Provide information to the Junior High School Biology teacher especially in Magelang about the importance of laboratory utilization in learning biology to improve student’s learning outcome
2. Giving consideration to the principal or decision-makers about the importance of the use and development biology lab in junior high school.

E. Glossary

1. Preparatory class in biology learning is the arrangement of the classroom in an effort to support the implementation of laboratory-based biology learning.

2. Management of learning material is the teacher’s effort which is conducted through planning activity, organizing, implementing or delivering the material and evaluating the provided material.

3. Student interaction is a form of reciprocal activity between student with student and between student and teacher in biology learning activities that are woven through the teaching method employed by teacher.