



The Knowledge of Science Teacher About Laboratory Based on Accreditation Status of State High Schools in Banda Aceh

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ABSTRACT

This study aims to determine the teacher's knowledge of the science laboratory based on the accreditation status of Banda Aceh Public High School. In this study, the method used is the survey method. In this study, the population used was the teacher of Banda Aceh Public High School consisting of 8 schools. As for the sample, there were 54 people Biology, Physics and Chemistry in Banda Aceh High School. The instruments used for data collection in this study were teacher response questionnaires. To analyze data, researchers used a percentage statistical test. Based on the results of data analysis that has been done, it is found that there are differences regarding teacher knowledge of the science laboratory based on school accreditation status. Where the teacher's knowledge of the laboratory based on the accreditation status of A Banda Aceh Public High School is better with a percentage of 89,50% compared to the teacher's knowledge of the laboratory based on the B accreditation status of the Banda Aceh State High School with a percentage of 78.50%. So that it can be said that the teacher's knowledge of the laboratory based on its accreditation status has good knowledge.

Keywords: teacher knowledge, science laboratory, accreditation

INTRODUCTION

Education is the most basic thing in the formation of one's character. Where education is a determinant of the quality of human resources (HR). Today the superiority of a nation is not only determined by the abundance of natural wealth but on the superiority of human resources (HR).

A good education system will produce ideal students. Superior and quality human resources can be realized in the presence of a container. School is one place for the community to explore all the potential that exists within them. School is the main container in the field of education in developing every potential, creativity, and confidence. Activities in schools can take place well if the facilities and infrastructure meet the criteria and support (Ibrahim, 2014).

The existence of institutions such as schools equipped with facilities and infrastructure to support learning, the learning process can be carried out well so as to maximize the potential of children and produce an ideal generation of education. The learning process is a teaching and learning activity in which the delivery of material from an educator

to students. Learning can be interpreted as a system or process of a series of activities to plan, implement and evaluate systematically in order to achieve ideal learning outcomes and objectives. (Komalasari, 2010).

The learning process will take place more optimally if there is a good and complete educational facility and infrastructure such as available study rooms, principal rooms, business administration rooms, libraries and laboratories. Good education infrastructure will support a good learning process. The learning process of biology, physics and chemistry does not only take place theoretically in the classroom but also uses other places that can support the improvement of learning outcomes, for example by using a laboratory. The laboratory is a place to apply learned theories to balance theoretical knowledge and environmental facts. Theory as a basis (basis) while practicum and research will strengthen the theory argument (Decaprio, 2013).

Problem of Research

Based on interviews conducted by researchers with several teachers of biology, physics and chemistry about laboratories there are several obstacles in carrying out the practicum, among others, the lack of readiness to do practicum, lack of ability to carry out practicum and lack of understanding in the use of lab materials and materials.

In addition to the situation and state of the laboratory, the knowledge of teachers of biology, physics and chemistry on the laboratory is also very important in supporting the success of the lab process. Implementation of practicum activities in accredited schools is also determined from the aspects of teacher knowledge in conducting learning activities. So in this case the teacher of biology, physics and chemistry must have knowledge of the school laboratory and its use properly and properly in order to achieve the learning objectives.

Research Focus

The laboratory for a school is used to conduct experiments in accordance with the theories obtained in the classroom. Theoretically, a good laboratory situation will also affect the value of accreditation of a school because the laboratory is one of the components assessed in school accreditation.

School accreditation is a series of school operational feasibility assessment activities with reference to established standard provisions. Usually it is done to test the completeness of the facilities and infrastructure of public accountability or as a self-regulation tool where the school recognizes strengths and weaknesses and continuously increases strengths and improves its weaknesses (Antonius, 2014).

In other words, school accreditation is a systematic and comprehensive school assessment activity through evaluation activities to determine school feasibility and performance. The results of the accreditation are in the form of official certificates issued by a particular institution. Based on this background, the researchers wished to conduct a study on "Teacher's Knowledge of Science Laboratory Based on Accreditation Status of State High Schools in Banda Aceh".

METHODOLOGY OF RESEARCH

General Background of Research

The method used in this study is the survey method.

Sample of Research

The population is the teacher of Banda Aceh Public High School which consists of 8 schools. The samples were teachers of biology, physics and chemistry. 2 schools with B accreditation and 6 schools with A accreditation were selected using purposive samples, samples taken from schools that were accredited A were 14 biology teachers, 14 physics teachers and 14 chemistry teachers. Whereas for schools that have B accreditation consist of 4 biology teachers, 4 physics teachers and 4 chemistry teachers, a total of 54 people from the Banda Aceh Public High School teachers.

Instrument and Procedures

Data collection in this study was carried out by gathering information on filling the teacher response criteria.

Data Analysis

To analyze data, researchers used a percentage statistical test.

RESULTS AND DISCUSSION

Based on the research that has been done on teachers in the field of biological studies, the results of the study state that cognitive abilities amount to 86%, affective aspects reach 88% and psychomotor aspects reach 93%. At the physics study teacher, the results of the study stated that cognitive abilities were 83%. affective aspects reached 92% and psychomotor aspects reached 93%. Furthermore, the chemistry study teacher, the results of the study stated that cognitive abilities were 87%, affective aspects reached 93%, and psychomotor aspects reached 99%. So it can be concluded that the knowledge of biology, physics and chemistry at the accredited A state high school in Banda Aceh is very good knowledge of the laboratory.

In the field of biology study teachers, the results of the study stated that cognitive abilities were 80%, affective aspects reached 78% and psychomotor aspects reached 77%. In the teacher of physics studies, the results of the study stated cognitive abilities of 77%. Affective aspects reach 80% and psychomotor aspects reach 78%. Furthermore, the chemistry study teacher, the results of the study stated that cognitive abilities were 80%, affective aspects reached 79%, and psychomotor aspects reached 77%. So it can be concluded that knowledge of science teachers at accredited B Banda Aceh public high schools has broader knowledge about work in the laboratory.

This is in accordance with previous studies which described laboratory functions in mathematics and science learning activities with a value of ≥ 75 with a percentage reaching 75% which means that they already have good knowledge of the functions of science laboratories and mathematics in schools (Wiyanto, 2014).

CONCLUSIONS

Based on the results of research conducted over 7 days on how many high school schools in Banda Aceh can be concluded that the knowledge of science teachers on laboratories based on the accreditation status of A in Banda Aceh Public High Schools can be categorized very well. This is known from the average end result of each aspect, which is 89.50%, while the knowledge of science teachers on the laboratory based on B accreditation status in Banda Aceh Public High School can be categorized as good. This is known from the average end result of each aspect which is 78.50%.

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