

## CHAPTER I PRELIMINARY

### 1.1 Problem Background

Perfection is the goal of life for all humans. The first step that humans take in achieving perfection is to plan for the future. Planning a core future in education. Learning is the core in education, while the core in learning activities (Mardianto, 2014). In learning, understanding concepts is the basis for a person to achieve a higher level of thinking. Thus, the creative thinking skills is only possible if it has certain concepts supported by strong reasoning power. The statement supports that the cultivation of a deep understanding of concepts needs to be done early on in the cognitive structure of students. The success of learning will increase as students make connections to the level of coherence between concepts and context. Physics is a science consisting of facts, concepts, principles, laws, postulates and theories and scientific methodologies. Learning Physics means students not only memorize concepts, but are able to use the concept if they encounter real-life problems related to the concepts they have.

During this time, the learning process of students is less encouraged to develop thinking skills. The learning process in the classroom is directed at the child's ability to memorize information. The child's brain is forced to remember and hoard various information without being required to understand the information he remembered (Sahyar and Maris, 2016). This is shown from data from various studies involving Indonesia. Based on an international survey of students' cognitive abilities and scientific literacy, they are TIMSS (Trends in International Mathematics and Science Study) and PISA (Program for International Student Assessment) held by the IEA and OECD (Organization for Economic Co-operation and Development). The 2011 and 2015 TIMSS results, Indonesia obtained the same score of 397 with an international average of 600. While the PISA scientific literacy scores held in 2012 and 2015 were 382 and 403 respectively. Furthermore the results obtained based on data from IMD (Institute for Management Development) World Talent Ranking 2017, Indonesia ranks 40th out of 63 participating countries in the Educational System with a score of

5.08. Furthermore, based on the Educational Assessment index conducted by PISA (Program for International Student Assessment) in 2017, Indonesia ranks 53<sup>rd</sup> out of 63 countries in the world. The results obtained show that the average achievement of Indonesian students in terms of cognitive aspects (knowing, applying, reasoning) is still low.

Based on this, Indonesian student achievement tends to be low on cognitive aspects so that students' abilities need to be improved, especially in the aspect of reasoning by teaching students to develop high-level thinking. Based on preliminary studies through interviews with 3 Physics teachers who teach in class XI MIPA Madrasah Aliyah Rantu Prapat, the learning done by the teacher has not been separated from providing motivation to students. According to him, useful motivation is given to students so that motivated students improve learning quality. Motivation is an essential condition of learning. Learning outcomes will be optimal, if there is motivation. The more appropriate the motivation given, the higher the success rate of learning (Sardiman, 2011). However, the fact that students are less motivated to learn, especially in physics. This can be seen in the learning process, many students tend not to show curiosity about the material being taught. In addition students also tend to have the power to think logically, this is seen in the probabilistic aspect.

This is seen when students have difficulty distinguishing formulas for each problem in physics. One of the hardest tasks in teaching is helping students to remain confident when they sink to a level where they are powerless with their failures (Joyce et al., 2009). The cognitive ecology suppresses that the way of thinking and how to acquire knowledge needs to get maintenance and support for the social context. In learning activities, motivation is the driving force in students that lead to learning activities and ensure the continuity of learning activities, so that the goals desired by the subject of learning can be overcome (Motivation as one of the implications of cognitive psychology in education has relevance. Cognitive thinking skills aimed at orientation that includes the more modest intellectual ability that is given up on the ability to solve problems (Mardianto, 2102). In fact, the learning process to adult this still give teacher domination and

no give access for child student for developing on a independent through invention in the process of thinking (Trianto, 2009).

Creative Thinking as one of the aspects of thinking needed by almost all fields of science is not developed because of limited access to students' thinking processes . Creative Thinking with consistent that is thinking accordingly with signs or system way think correct. Think such believed could obtained conclusions that can in responsible. Results from creative thinking is got it thought creative. For realize thought creative, someone mandatory meet rules as precondition in think straight and True False the other is must meet component basic think. Ability think Creative have that relationship tightly with learning science , so that students knowledge is influenced by the students' ability to creative thinking .

Based on Sigalingging's research (2015), it was concluded that there were differences in high cognitive learning outcomes between students who had a motivation level above average with students with a motivation level below average. Students who have above-average learning motivation have higher cognitive abilities that are better than students who have below average motivation. Furthermore, research who do Mardiana (2014) there are differences in learning outcomes between students who are given the motivation with students that learned without motivation. Students' physics learning outcomes increase by providing motivation. The results of Siswanto's research (2014) show that students who have high creative thinking have acquired higher learning ability on mathematical connections compared to students who have low creative thinking .

Based on the background described , researchers are interested in conducting research with the title **"ANALYSIS INFLUENCE LEARNING MOTIVATION AND CREATIVE THINKING TOWARD LEARNING OUTCOMES OF CLASS XI IN MADRASAH ALIYAH RANTAU PRAPAT"** .

## 1.2 Identification of problems

Based on the background of the problems that have been raised, the following research problems can be identified :

1. Motivation to study physics students of Madrasah Aliyah Rantau prapat tend to be low
2. Creative thinking skills Madrasah Aliyah Rantau Prapat has not been considered in the study of Physics
3. Low motivation to learn physics and creative thinking has implications for student learning outcomes to be low

## 1.3 Scope of problem

In accordance with the background and problem identification and to make this research directed, the problem in this study is limited to:

1. Subject of the study is limited to the first grade students MIPA Madrasah Aliyah Rantau Prapat
2. The analysis carried out is limited to the relationship between motivation to learn physics and Creative thinking towards students' physics learning outcomes
3. Learning outcomes that will be examined in this study are the results of learning physics in the cognitive or knowledge domain
4. The learning activities studied were addressed in Measurement Materials.

## 1.4 Formulation of the problem

Based on the background, identification and limitations of the problem, the problem in this study is formulated as follows:

1. How is the of learning motivation, creative thinking and learning outcomes physics class XI MIPA Madrasah Aliyah Rantau Prapat ?
2. How do you influence the motivation to learn physics on the results of physics learning in class XI MIPA Madrasah Aliyah Ranntau Prapat ?
3. How do you think about the influence of creative thinking on the results of physics learning in class XI MIPA Madrasah Aliyah Rantau Prapat ?

4. How is the simultaneous influence of physics learning motivation and Creative thinking on the physics learning outcomes of class XI MIPA Madrasah Aliyah Rantau Prapat?

### 1.5 Research Objectives

Based on the problem formulation, the research objectives include:

1. To find out the quality of motivation to learn physics , Creative thinking and the results of physics learning in class XI MIPA Madrasah Aliyah Rantau Prapat.
2. To determine the influence of physics learning motivation on physics learning outcomes of students of class XI MIPA Madrasah Aliyah Rantau Prapat.
3. To determine the influence of creative thinking on the results of physics learning XI MIPA Madrasah Aliyah Rantau Prapat.
4. To find out the simultaneous influence of physics learning motivation and Creative thinking on physics learning outcomes of class XI MIPA Madrasah Aliyah Rantau Prapat.

### 1.6 Benefits of research

The benefits of this study are:

1. Reference for development science related knowledge with research this for interested researchers with research similar
2. As information material in knowing the of students' physics learning motivation at Madrasah Aliyah Rantau Prapat.
3. As information material in knowing the level of creative thinking skills
4. As information material in knowing learning outcomes student physics at Madrasah Aliyah Rantau Prapat
5. As an alternative to improve the of teaching and learning physics students in Madrasah Aliyah Rantau Prapat

### 1.7 Operational definition

1. Learning motivation is one of the psychological factors that are useful to increase passion, energy and enthusiasm for learning activities
2. Creative thinking is the skills to bring a conclusion from the logic of reasoning activities by connecting one mind with the mind

3. Learning outcomes are students' skills or knowledge obtained through the learning process for a certain period of time .



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