

CHAPTER I INTRODUCTION

1.1 Background

Education is essentially a business man civilize or humanize humans, education is very strategic to the intellectual life of the nation and is required in order to improve the quality of the nation as a whole. Education is a conscious and deliberate effort to create an atmosphere of learning and the learning process so that learners are actively developing the potential for him to have the spiritual strength of religious, self-control, personality, intelligence, noble character, and skills needed him, society, nation and state.

The function of education should really be considered in order to achieve national education goals because goals serve as a conduit of clear direction to the activities of the organization providing education so that education shall be directed to 1) Education held in a democratic and fair and not discriminatory to uphold human rights, the value of religious, cultural values, and national diversity, 2) Education organized as a systemic entity with open systems and many understanding, 3) Education was held as a civilizing process and the empowerment of learners that last a lifetime, 4) Education organized by an example, build willingness, as well as developing the creativity of learners in the learning process and activities, 5) Education organized by developing a culture of reading, writing, and numeracy for all members of society and 6) Education organized by empowering all components of the community through participation in the implementation and quality control of education services.

Improving the quality of education is determined by the readiness of human resources involved in the educational process. The teacher is one of the determinants of high and low quality of education has a strategic position so any effort to improve the quality of education needs to give great attention to the improvement of teachers both in terms of quantity and quality. Teachers as

education is one of the critical success factors of educational goals, because the teacher is directly in contact with the students, to provide guidance that will produce graduates who are expected. Teachers are human resources become planners, perpetrators and decisive achievement of educational goals. For that to support the activities of teachers, required school climate that is conducive and good relationships between the elements that exist in schools, among others, principals, teachers, administrators and students. As well as the good relations between the elements that exist in the school with parents and the community.

Basically the educational demands a lot has changed. Educators need to develop and implement teaching and learning activities in which children can actively construct their own knowledge. This is consistent with the view that constructivism learning success depends not only on the environment or conditions of learning, but also on the prior knowledge of students. Learning involves the creation of "meaning" by the students of what they do, see, and hear.

The issue now is how to find the best way to convey the concepts being taught so that students can use and remember longer the concept. How can teachers communicate well with his students. How teachers can broaden the diverse thinking of all students, so can learn how the concept and how to relate it to real life. How can as a good and wise teacher is able to use the model of learning with regard to solving the problem.

Problem based learning model (PBL) is an instructional model that is based on a number of issues that require investigation authentic investigations that require the completion of a real problem. Brunner in Trianto (2009: 91) states that starts to look for solutions and the accompanying knowledge, generating knowledge that is really meaningful. A logical consequence, because by trying to seek a solution to the problem independently will give a concrete experience, with experience, it can be used also to solve such problems, because that experience can give special meaning for learners. Based on international journal by Faudziah (2013), The role of integrated PBL in determining students' level of creative-

critical thinking was being investigated in this study. The distribution of students' thinking style before and after the early implementation of integrated PBL among Physics undergraduates was reported. While in the other stated that how students' critical thinking after being intervened with integrated PBL online in two different outline of main subjects in Physics courses (i.e., Thermodynamics and Statistical Physics). Even though based from the findings on quantitative data in this study show decreasing in students ability on critical thinking which caused by some factors that explained using qualitative data (i.e., interview), it is believed that PBL online could still be very promising learning style to substitute traditional learning in tertiary level mainly in sciences course with proper and well planned approach. In addition, PBL still has a promising potential of learning approach in developing students' soft skills during their 3 to 4 years study in higher education (Fauziyah : 2014).

Generally PBL has a great potential to foster students' higher order thinking skills, especially critical thinking ability. The links between PBL and critical thinking ability outside of medical field are still lacking with substantial evidence to be deemed conclusive, especially from education point of views. This scarcity has called for more experimental studies that examine PBL effectiveness in different populations and disciplines. Therefore, the study on PBL and critical thinking remains equivocal and leads to inconclusive evidence. This review however provides some hints that PBL could be more effective in a long-term duration (Aliyas : 2011).

Hasrul (2009) state that problem-based learning (problem based learning) can increase students' interest in the practice of rolling up transformer students of SMK Negeri 3 Makassar. While Bektı wulandari says that The concept of problem solving in the PBL model's done by the group discussions. PBL method is more emphasis on the exchange of ideas and sharing of experience in problem solving. Students who have high motivation would be more interested to increase knowledge and desire to learn new things in order to solve a problem related to the real world.

Law No. 20 of the National Education System of 2003 states that learning is a process of interaction with educators and learners learning resources in a learning environment. In learning, the teacher must understand the nature of the subject matter they teach and understand the various models of learning that can stimulate students' ability to learn by careful planning by teachers teaching (UU Pendidikan Nasional No. 20 Tahun 2003).

Learning is an attempt to learned the students. Implicitly, there is a learning activity in selecting, establishing, developing teaching methods to get the desired result, and based on the existing conditions of learning. This activity is at the core of the learning plan (Husamah, 2013: 34).

Lessons will be planned require various theories to design it, so that lesson plans are drawn up can really meet the expectations and learning objectives, the need to plan in order to achieve intended learning improvement.

Learning outcomes is related to learning activity because learning activity is a process, while learning outcomes are achieved in part the result of a person after experiencing the learning process by first do the evaluation of the learning process is done. Learning outcomes is an achievement earned by students in the learning process as outlined by the numbers and in the application in everyday life over the knowledge gained. The results of the study indicate a high or low teacher success in delivering course material in the learning process. Sanjaya, Wina (2006: 52) says that there are several factors that can influence the activities of the learning system, including: (1) teacher, is the main component of which is crucial in the implementation of an instructional strategy, (2) Students, is a unique organism that developed in accordance with the stage of development, (3) factors that support facilities and infrastructure directly to the learning process, (4) environmental factors.

In each curriculum, assessment system becomes a very important thing to note, given the assessment is the process of gathering information / evidence through measurements, interpret, describe, and interpret the evidence of

measurement results. Curriculum 2013 signaled an important self-assessment system, where students can assess their own abilities. Assessment system based on three (3) important aspects, namely: knowledge, skill and attitude.

The achievement of expected results from the implementation of the curriculum in 2013 this is the learners have the opportunity to develop their full potential in order to create quality human resources, not only intelligent but have skills and good character through balancing the three aspects (cognitive, affective, and psychomotor), as well as the implementation of this curriculum can be implemented evenly so not only in the center and the surrounding area that could benefit from the curriculum. In addition, students are also trained to face a future full of globalization (Wiranto, 2013: 1).

But in fact the field, although many made design or a solid plan and good learning, there are still many students who get bad grades or poor outcomes after they learn a subject. For example in the subjects of Physics which is considered difficult by all students. Many students who think physics is a difficult subject because they often get low grades in their exam results. If such is the case, then programs and plans that have been made are no longer relevant to what would be achieved. And in actuality, many teachers who simply make a good program. In another sense, the teacher can only make the program and then early planning is not implemented in the learning process. For example, a teacher only explain what he knows and he can see from the book, and not based on what he had made in the beginning of the program or the first planning or not in accordance with the draft of Lesson Plan that he had made. Not paying attention to what the main purpose of the learning outcomes. So, what should be the main goal which is made as an indicator of a learning process was not achieved. Due to the material or any material that is taught and what is given to students in accordance with the indicators (results to be achieved). Even worse, the different indicators towards the process, and the irrelevance of indicators and evaluation process of the learning process can make students overwhelmed and can not reach from what should have been achieved in the subjects in a particular topic. And in the end the

students still thought physics was very difficult and they will get value or poor results.

Inconformity of indicators (objectives to be achieved), learning and evaluation process may impede the achievement of learning objectives and learning outcomes that will get worse anyway and it set in curriculum 2013. Based on the problems identified, the researchers are interested in studying it further. Researchers wanted to try to do a study titled **“The Effects of Problem-Based Learning Model In Curriculum 2013 towards the Student Outcomes in Topic Uniform Linear Motion in Grade X SMAN 2 KISARAN.”** expected the results could provide benefits for teachers, especially in providing an alternative model of learning in classroom, particularly in efforts to achieve the purpose and the indicator that have been planned in Lesson plan and also can increase the student learning achievement.

1.2 Identification of Problems

Based on the background of the above problems can be identified as follows:

1. Low student learning outcomes in the field of study of physics.
2. Inconformity of indicators, learning process, and evaluation can impede the achievement of learning objectives.
3. Model that used in the learning process have not been using problem-based learning and still dominated by Conventional Learning.

1.3 Limitation of the problem

This study will be limited as follows:

1. The subject in this research are the students in SMAN 2 Kisaran class X
2. The conformity among the indicator, process of learning the process of the evaluation (in curriculum 2013).
3. The learning model that used is the Problem-based learning model.

1.4 Problem Statement

Based on the background of the problems describe above are common problems can be formulated in this studies are:

1. How does the learning outcomes of students which teach using the Problem Based Learning Model in curriculum 2013 (emphasize conformity among the indicator, process of learning and process of evaluation) in Topic Uniform Motion in grade X semester I?
2. How does the learning outcomes of students which teach using the Conventional Learning Model Material in Topic uniform Motion in grade X semester I?
3. Is there a significant effect using Problem Based Learning Model in curriculum 2013 (emphasize conformity among the indicator, process of learning and process of evaluation) in Topic Uniform Motion in grade X semester I?

1.5 Research Objectives

1. To know the learning outcomes of students which teach using the Problem Based Learning Model in curriculum 2013 (emphasize the conformity among the indicator, process of learning and process of evaluation) in Topic Uniform Motion in grade X semester I
2. To know the learning outcomes of students which teach using the Conventional Learning Model Material in Topic Uniform Motion in grade X semester I
3. To analyze if there is a significant effect using Problem Based Learning Model in curriculum 2013 (emphasize the conformity among the indicator, process of learning and process of evaluation) in Topic Uniform Motion in grade X semester I

1.6 Research benefits

1. As input and add insight to researchers as prospective teachers in teaching physics at the future

2. As a positive contribute ideas and information into the material in order to improve the learning variation in the conduct of research in particular and education in general
3. As a comparison for future researchers who will research with the same learning model

1.7 Definition of Operational

Evaluation : The process of making judgments about what is good or desirable as in, for example, judging the quality of pupils' essays or the desirability of a particular instructional activity

Indicator : Basic competence achievement markers are characterized by measurable changes in behavior that includes attitudes, knowledge, and skills. Indicators are developed in accordance with the characteristics of learners, subjects, educational units, potential areas and formulated in measurable operational verbs and / or observable

Learn : A process of one's efforts to acquire a new behavior changes as a whole, as a result of his own experience in interaction with the environment

Learning : Usually defined as a change in an individual caused by experience

Method : Method, which the function is a means to an end

Teaching : The guidance of learning

Teaching Model : Teaching model refers to a particular approach to instruction that includes its goals, syntax, environment, and management system