CHAPTER I
INTRODUCTION

1.1 Background

Education is the process of developing the power of reason, morality and life skills in the potential of every human being. A quality education in an educational process is said to take place effectively, humans gain a meaningful experience for him and product education are the individuals that benefit the community and nation building. To achieve the educational goals the government has tried to carry out development in various sectors, improving the quality of teachers and educational system or curriculum reform.

However, government efforts to improve the quality of education in Indonesia have not been entirely successful. According to the 2004 UNDP Indonesia is ranked 110th of 173 countries in the world (www.depdiknas.go.id). Mathematics is a universal science that underlies the development of modern technology, have an important role or key position in different disciplines and promote the human intellect. Therefore, mathematics is given at every level of education to prepare students to face the development of an increasingly fdeveloped and developing rapidly. Cornelius about the importance of learning mathematics (in Abdurrahman, 2003:253) states that:

> "There are five important reasons to learn mathematics is because math is: (1) means a clear and logical thinking, (2) a means for solving problems of daily life, (3) the means to know the patterns of relationships and generalization of experience, (4) a means to develop creativity, and (5) means to increase awareness of cultural development."

Given the importance of mathematics, it is expected the students to master math. But in fact the quality of education in Indonesia is very disappointing seen from the low student learning outcomes are achieved. Based on data from UNESCO, the quality of mathematics education in Indonesia was ranked 34 of 38 countries surveyed. Other data that showed student achievement of math in Indonesia is low can be seen from the results of the survey National Center for Education in Statistics 2003 to 41 countries in mathematics learning, where

Indonesia's Rating to 39 below Thailand and Uruguay. (http://ugm.ac.id/index.php?page=rilis&artikel=4467)

It also looks at the Ujian Nasional result in 2012, *Mendikbud* M.Nuh (http://www.kompas.com/edukasi.kompas/read/2012/06/02/10035432/Banyak.Siswa.Tak.Lulus.Ujian.Matematika) explains that most of students failed in mathematics. From the above quotations provide clear information that until now the learning outcomes results mathematics students have not achieved the desired level.

Conditions are not much different also found in VIII grade SMP Negeri 1 Tebing Tinggi. Based on the interview on January 21, 2012 with one teacher who taught mathematics in VIII grade, Mr. Saheri S.Pd. revealed that the mathematics learning outcomes of students in VIII grade is far from what was expected. This is evident in student learning outcomes in 2011 are still very low with average grades for mathematics class is 55-60. He also revealed that:

> "The low math student learning outcomes is largely due to the lack of a strong desire or urge to further pursue the concentration of these subjects. Students are less serious, often complain of difficulties in learning mathematics that tend to be less motivated to learn in school and repeat the lesson at home ".

From the above statement can be concluded that the lack of motivation in the learning process can lead to poor learning outcomes. Students were not getting something from what has been learned, so that students are reluctant or less zealous in every teaching and learning activity. As revealed by Mulyasa (2008:196) that: "Motivation is one factor that helped determine the effectiveness and success of learning, because students will learn in earnest when highly motivated."

In addition, factors that also affect students' learning outcomes are the use of a less appropriate approach by the teacher. Bloom in Iif (2011: 68) say that:

> "There are three main factors that influence learning outcomes namely the cognitive abilities, achievement motivation, and quality of learning. Quality of learning is the quality of the learning activities undertaken and this involves learning model is used. Achievement motivation is to give stimulus to the students for more advanced learning

and achievement. Cognitive learning is giving students the material in order to achieve maximum results and provide knowledge about something that is useful for future students. "

However, often found on the field that the teacher mastering of a subject matter very well but can not do learning activities very well. It happened because these activities are not based on a model or a particular learning approach so that the learning outcome of student is low. According to Sobel and Maletsky (1998:2) a lot of math teachers using lesson time to discuss tasks first then give a new lesson and then give the task again to the students. This approach is carried out every day (routine) can be regarded as BTD is Boring, Threatening, and Deplete the whole interest of the students.

By using the wrong approach or method is not appropriate, students will also have difficulty to understand academic concepts, so that they can not apply it in daily life. Iif (2011:115) says that: "The biggest problem faced by the learners (students) right now is they have not been able to connect between what they learn and how that knowledge will be used. This is because the way they get information and self-motivation has not been touched by a method that can really help them. "

The selection of appropriate learning approaches is needed to teachers to facilitate the process of formation of knowledge in students, but teachers must also consider whether the use of learning approaches that have been effective application and efficient. One approach to learning that can be used in efforts to improve learning outcomes approach is Contextual Teaching and Learning (CTL). Namely the concept of learning that helps teachers to link between what is taught with real-world situations of students and encourage students to make connections between its knowledge with its application in their lives as members of the family and society.

Contextual Teaching and Learning is a learning system that matches the performance of the brain, to develop patterns that embody the meaning by linking academic content to the context of daily life of students. It is important to apply the received information is stored only in short-term memory is easily forgotten,

but can be stored in long-term memory. So that will be lived and applied in tasks (Iif, 2011:116).

Kunandar (2007:293) states:

> "Target-oriented learning mastery of the material proven to be successful in the competition 'remember' the short term, but failed to equip the children to solve problems long term. Therefore, there should be a more meaningful approach to learning so as to equip students to face life problems faced by current and it came. Learning approach that is suitable for the above is the approach Contextual Teaching and Learning (CTL). "

With Contextual learning involves seven principles, namely modeling, questioning, inquiry, constructivism, authentic assessment and reflection, is expected to more meaningful learning for students that result in improved student learning outcomes. The learning process takes place naturally in the form of student work and experience for themselves, not a transfer of knowledge from teacher to student. This environment is also expected to create a feeling of comfort for the students so that they better understand what they are learning that in turn can enhance students' mathematics learning outcomes.

One of the mathematics materials that can be taught to approach the application of CTL is relation and function in VIII grade and *SMP / MTs Kurikulum Tingkat Satuan Pendidikan* By providing the motivation and involve students directly in constructing knowledge and finding relation and function concepts, to share opinions with friends and teachers, and reflection activities at the end of the learning activities it is expected that a more meaningful learning activities and learning outcomes of students increased math.

Information obtained from interviews with Mr. Saheri, S.Pd., also states that the relation and function is still one of the subject which is considered difficult for students and resulted in low yields of their learning. Still a lot of students have difficulty in understanding about relation and function. By providing the motivation and the use of CTL approach is expected to provide a positive influence on student learning outcomes, especially in relation and function.

Based on the above authors are interested in doing research with the title "The Effect of CTL Approach and Motivation for Learning Outcome of Relation and Function at VIII Grade SMP Negeri 1 Tebing Tinggi Academic Year 2012/2013".

1.2 Identification of Problem

From the description background above existing problems can be identified are as follows:

1. Quality of mathematics education in Indonesia is still low when compared with other countries.
2. The learning outcome of students at SMP Negeri 1 Tebing Tinggi in relation and function is still low
3. Lack of student motivation in mathematics.
4. Learning approaches that teachers use less precise with the material presented.

1.3 The Scope of Problem

Based on the identification of the above problems, the researchers scope the problem to effect of CTL approach and motivation for learning outcome of relation and function at VIII Grade SMP Negeri 1 Tebing Tinggi Academic Year 2012/2013".

1.4 Research Question

Based on the background and the limitation of issues raised, then the research questions in this study are:

1. Is the student's learning outcome of relation and function taught by Contextual Teaching and Learning (CTL) approach higher than student's learning outcome of relation and function taught by Direct Instruction (DI) approach?

2. Is the student's learning outcome of relation and function with high motivation higher than student's learning outcome of relation and function with low motivation?

3. Is there an interaction between learning approach and the student's motivation to student's learning outcome?

1.5 Research Objectives

a. To know whether the student's learning outcome of relation and function taught by Contextual Teaching and Learning (CTL) approach is higher than student's learning outcome of relation and function taught by Direct Instruction (DI) approach.

b. To know whether the student's learning outcome of relation and function with high motivation is higher than student's learning outcome of relation and function with low motivation.

c. To know whether there is an interaction between learning approach and the student's motivation to student's learning outcome.

1.6 Research Benefits

The benefits which expected of this research are:

a. The benefits for author

- Increasing knowledge of the authors in conducting research in educational field in the future
- Gaining experience in applying learning model and provide a quality learning

b. The benefits for education

- As consideration for the teachers in formal educational institutions in an effort to improve student achievement in mathematics
- As a comparison for the next researchers in examining similar issues