THE INTERACTION EFFECT OF TEACHING AND LEARNING MOTIVATION TOWARDS THE STUDENT’S ENGLISH RESULT
(An experiment at State Junior High School in Bogor Region)

Muhammad Ahsan Tampubolon
Universitas Pamulang, Banten
ahsanmargatampubolon@gmail.com

Abstract

The purpose of this study was to determine the interaction effect of teaching and learning motivation towards students’ English result consisting of 30 for experiment class and 30 for control class, and the sampling technique used is cluster random sampling. The research was guided by a conceptual framework leading to the two ways of ANNOVA. The research instrument used were the test results of learning motivation and English result scoring that have been tested: 1) there is a significant effect of teaching method towards the students’ English score, as $F_o = 17.994$ and $Sig. = 0.000 < 0.05$. 2) there is a significant effect of motivation towards students’ English score, as $F_o = 31.308$ and $Sig. = 0.000 < 0.05$. 3) there is an interactive significant effect of teaching method and motivation towards the students’ English score, as $F_o = 3.858$ and $Sig. = 0.054 > 0.05$. The results contribute most to increasing of the students’ English score by using the Inquiry Method beside reinforcing of the students’ motivation trait in the classroom activity.

Keywords: interaction effect, teaching, learning motivation.

INTRODUCTION

Education is a conscious effort to cultivate the potential of human resources. Education is very important role in order to improve the quality and human resources of Indonesia. According to Law no. 20/2003 on National Education System Article 1, paragraph 1 (2003: 3) on the definition of education as follows: Education is a conscious and planned effort to create an atmosphere of learning and learning process in which students actively develop their potential to have religious power, self-control, personality, intelligence, noble character, and skills needed himself, society, nation and state. (Law no. 20 tahun 2003 explains “National Education System” chapter 1 (2003:3) mengenai pengertian pendidikan sebagai berikut : Pendidikan adalah usaha sadar dan terencana untuk mewujudkan suasana belajar dan proses pembelajaran agar anak didik secara aktif mengembangkan potensi dirinya untuk memiliki kekuatan keagamaan, pengendalian diri, kepribadian, kecerdasan, akhlak mulia, serta keterampilan yang diperlukan dirinya, masyarakat, bangsa dan negara.)

Introduction to this, education in Indonesia is expected to lead the students to be able to develop their potential. Potential is measured from the ability of students to have spiritual strength in his religious life, self-control in social life, a strong personality, intelligence, noble character,
and life skills that can provide benefits for himself and the surrounding community or in this case capable students has the ability of a professional according to the field of science he studied.

There are two concepts related to education, namely “learning and teaching”. Learning is closely related to the students and is closely related to the teacher. The components that determine the achievement of these goals are teachers as implementers of education and teaching. The teacher in carrying out his duties is guided by the curriculum that applies to every level that becomes his duty. The success of teachers and students in the achievement of learning goals that have been determined can be known through information obtained through measurement and assessment. The teaching and learning process is a reciprocal process between teachers and students to collectively work towards achieving instructional objectives set by teachers. Therefore, high achievement as a form of student learning outcomes is not only the responsibility of teachers, but the most important is the responsibility of students in their readiness in developing the science given by teachers by showing attitude and high motivation. A teacher should motivate students to learn (Harmer, 2007:20).

National Law No. 14 Year 2005, better known as the Teachers and Lecturers Law, which states that teachers have the position of professionals at the level of primary education, secondary education and early education on formal education that is lifted in accordance with legislation. In that case it is also stated that professional teachers and lecturers must possess and equip themselves with skills, skills or skills that meet certain quality standards or norms and require a distinctive profession according to the characteristics of the occupied occupation.

**LITERATURE REVIEW**

The researcher obtained some information that the ability of students to master the subject matter that has been submitted by the teacher is quite low. The phenomenon that occurs due to teachers who provide teaching and learning process is monotonous, passive learners in learning and means and the available infrastructure is still limited.

Wahab in Syaiful Muttaqin (2008: 1) Points out that one of the factors affecting learning achievement is "learning method" therefore learning climate developed by teachers has a great influence on the success and excitement of learning. Similarly, the quality and success of learning is strongly influenced by the ability and determination of teachers in choosing and using learning methods.

According to the National Education Department in its publication entitled Collection of Learning / Mentoring Methods (2005: 126) "The learning model is a blue print teaching engineered in such a way as to achieve certain learning goals". Blue print is usually used as guidelines for planning and implementation of teaching and learning evaluation.

Roestiyansyah in Syaiful Basri Djamarah (2006: 74). 'Learning method is a learning strategy as a tool to achieve the expected goal'. Furthermore Syaiful Basri Djamarah (2006: 72) 'The position of learning method is as a tool of extrinsic motivation as a learning strategy and as a tool to achieve the goal'.

From some of the above understanding can be concluded that the learning method is the implementation of learning strategies, or can be regarded as a technical translation of learning strategies through a series of activities in teaching and learning activities.

Teachers as learning motivators for students should be able to generate student encouragement to learn and explain
concretely to students what is done during teaching and learning activities. Student learning outcomes will be optimal if there is a motivation to learn in students themselves. Motivation is one of the factors that can improve the results and quality of learning.

Motivation to learn is a mental force that encourages the learning process. Student learning motivation can be weak. Weak motivation or lack of motivation to learn will dislodge learning activities. Therefore, the motivation of learning for students needs to be strengthened continuously. In order for students to have a strong motivation, the place created an exciting learning atmosphere.

Guilford explains that creativity is a divergent thinking process, that is, the ability to provide alternative answers based on the information provided. Guilford believed that the standard intelligence tests that existed at the time did not support the divergent thinking process. The intelligence test is not designed to measure this, but intelligence tests are only designed to measure convergent thinking processes, namely the ability to provide a logical answer or conclusion based on the information provided. This is the result of a traditional educational pattern that does not pay much attention to the development of divergent thinking processes although this ability proves to be very instrumental in the various advances achieved by science. (Structure of Intellect Theory, Guilford, 1967)

The Study of Language Teaching Analysis, Sutarjo, 1999, states that aspects of the presentation competence are:

1. Ability to describe, explain the subject matter clearly and correctly.
2. Ability to give instructions on how to use the language book.
3. Be able to deduce the subject matter under discussion.
4. Able to train students to read systematically, quickly and correctly.

There are three main principles in the Learning Approach: order, discipline and concentration (Gie 1995: 70). In English the abstract material requires a regular, disciplined way of learning and a concentration on what is learned. The material can be mastered when students learn earnestly because the material one with the other are related and requires mastery of the material.

Effective learning approaches can improve students' abilities according to the instructional goals achieved. To improve the way of learning needs to be considered internal conditions and external conditions.

Internal conditions are conditions that exist within the individual itself, such as health, inner peace and so forth. External conditions are conditions that exist outside the human person, such as family and the environment. To be able to learn effectively requires a supportive environment.

Motivation is a tool for a teacher to invite students willing to do the job with passion so that the goals of the organization achieved well. Motivation is also commonly defined in processes that determine intensity, direction and individuals in an effort to achieve goals, even though common motivations are related to effort. According to George R. Terry (1988) Motivation concerning human activity and behavior and is a vital element in management.

Attempts to generate work motivation in a person not only through the rewards of skill and proper placement in accordance with his enormous ability in the world of science. Motivation is a set of attitudes and values that influence the individual to achieve specific things that fit the individual's goals (Organizational Behavior, Stephen P. Robin) Motivation in a person is the impetus to do something and directing a person or a group
to achieve a certain goal. Motivation according to (Lawler, 1994,45) is a person's self motivating condition to perform certain activities to achieve the goal. V. Room said that motivational theory as the process of determining the choice between several alternatives and voluntary activities. Some behaviors are seen as controllable activities.

Maslow (1943-1970) argued that basically all human beings have basic needs. These five levels of need are known as Maslow's Hierarchy of Needs, starting from basic biological needs to more complex psychological motives that will only be important once basic needs are met.

Maslow's Hierarchy of Needs:
1. Physiological needs (hunger, thirst and so on)
2. Needs sense of security (feel safe and protected, away from danger)
3. The need for love and belonging (affiliated with others, accepted and owned)
4. The need for rewards (achievement, competence and gain support and recognition)
5. Self-actualization needs (cognitive needs, knowing, understanding, and exploring aesthetic needs: harmony, order and beauty, self-actualization needs, and gaining self-satisfaction and realizing its potential)

V. Room Theory (1964) on Cognitive Theory of Motivation explains why a person will not do something he believes, he can not do it. Even if the outcome of the work is what he wants. The high and low motivation of a person is determined by three components, namely expectations (success on a task), instrumentalist (judgment about what will happen if successful in doing a task) and task (success to get the final result). Achievement Theory, Mc. Clelland (1976) states that there are three important things that become human needs, namely: 1. Need for achievement 2. Need for affiliation 3. Need for power. Clayton Adlerfer explores ERG's motivational theory based on human needs for existence, relatedness, and growth. Measurement is the process by which the kit uses numbers. Learning outcomes mean decision-making emphasizes the words to determine value. So strictly the definition of judgment as an effort to make decisions and use systematic data collection procedures about a symptom to be rewarded (Tyler, 1950, 201)

Understanding the test results of learning is the end of the activities to be obtained output as a result of teaching and learning process that has been going on. The resulting learning results are illustrated with achievement and associated with instructional objectives. So the change in student learning behavior that occurs due to the interaction of teachers and students in the learning process.

METHOD

The method used is an experimental method that is by giving different treatment types in two study groups of students. One group was used as experimental group, which was given English teaching treatment with The Inquiry Method, while the other group as control group premises treatment of conventional teaching method. From each group then it is divided into students who
have high learning motivation and low learning motivation.

This study contains two validities, namely internal validity (related to the effect of the existing attribute treatment on student learning outcomes based on the accuracy of procedures and data collected and conclusions) and external validity (related to whether or not the results of this study are generalizable to other schools that do not have condition and same characteristics).

In order to achieve these objectives, then in this study controlled the effect of extra variables as follows:

1. The influence of historical variables, controlled by giving the same subject matter, in the same time period and by the same teacher.
2. Determining variable maturity, controlled by way of treatment process in internal variable time not too long. Thus they are expected to have the same mental and physical change opportunity.
3. Influence of non-pretest variable, controlled by way of not giving pretest pad to both sample groups. This is done so that the pretest does not affect the appearance of the subject during the treatment process.
4. Effect of instrument variables, controlled by giving the same test in the experimental group.
5. Effects of mortality variability, controlled by giving equal treatment to other students who are not sampled so that if a mortality occurs it can be replaced immediately with other equivalent students.
6. The influence of interaction between subjects, controlled by not notified that the research process is being conducted and provide different learning process.

As an attempt to control the external validity of the following steps:

1. Interaction of learning with The Inquiry and Conventional Methods. Controlled by experiment class retrieval and balanced control. This is done so that the initial conditions in both classes are assumed to be the same. Then the two experimental classes were treated differently.

2. Reactive research settings, controlled by: a. Treatment atmosphere is not artificial so that students do not feel being examined (natural learning observation) b. Subjects are not given information that there is research c. Practice for all students in one learning class as well as sample and non sampled. d. The teacher cultivated only one person for both experimental classes.

### Research Design

<table>
<thead>
<tr>
<th>Learning Motivation</th>
<th>Learning Methods</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>The Inquiry Method (A₁)</td>
<td>The Conventional Method (A₂)</td>
</tr>
<tr>
<td>High Learning Motivation (B₁)</td>
<td>A₁ B₁</td>
<td>A₂ B₁</td>
</tr>
<tr>
<td>Low Learning Motivation (B₂)</td>
<td>A₁ B₂</td>
<td>A₂ B₂</td>
</tr>
<tr>
<td>Total</td>
<td>Σ A₁</td>
<td>Σ A₂</td>
</tr>
</tbody>
</table>

A₁B₁ = The Inquiry Method with The High Learning Motivation
A₁B₂ = The Inquiry Method with The Low Learning Motivation
A₂B₁ = The Conventional Method with The High Learning Motivation
A₂B₂ = The Conventional Method with The Low Learning Motivation
Sampling Technique
According to the problem studied, the population in this study were 2 classes (of which each class contained 30-32 students) of 6 grade VIII school students in Bogor in the even semester.
Sample according to Sudjana (2001: 6) "sample is part of the population taken". Furthermore Roscoe in Sugiyono (2013: 74) said that if the research will be multivariate analysis, then the samples of at least 10 times the number of variables to be studied. (minimum 30 people sample)
In this research, the sample of 60 students were divided into two groups of students 30 students as experimental group and 30 students as control group.

Hypothesis Test Technique
Hypothesis test analysis using Analysis of Variance (ANOVA) two-way is a technique of data analysis research using SPSS version 20.0 for Windows. Testing criteria using probability value (Sig.).
Accept $H_0$: If the value is Sig. > 0.05 which means there is influence.
Accept $H_1$: If the value is Sig. <0.05 which means no effect.

DATA ANALYSIS
Summary of data analysis results using ANOVA can be seen in the following table

<table>
<thead>
<tr>
<th>Test of Between – Subjects Effect</th>
<th>Students’ English Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Type III Sum of Squares</td>
</tr>
<tr>
<td>Corrected Model</td>
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</tr>
<tr>
<td>Intercept</td>
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<tr>
<td>A</td>
<td>1100.817</td>
</tr>
<tr>
<td>B</td>
<td>1915.350</td>
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<tr>
<td>A * B</td>
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<tr>
<td>Error</td>
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<tr>
<td>Total</td>
<td>355827.000</td>
</tr>
<tr>
<td>Corrected Total</td>
<td>6678.183</td>
</tr>
</tbody>
</table>

R Square = .487 (Adjusted R Squared = .460)

CONCLUSION
1. There is a significant influence of learning methods on students' English learning result evidenced by the acquisition of $F_0 = 17.994$ and Sig. = 0.000 <0.05
2. There is a significant influence of students 'learning motivation on students' English learning result evidenced by the acquisition of $F_0 = 31.308$ and Sig. = 0.000 <0.05
3. There is a non-significant influence on student learning motivation and student's learning motivation on students' English learning result evidenced by the acquisition of $F_0 = 3.858$ and Sig. = 0.054> 0.05

Some suggestions are as follows:
1. The English grades of students studying with The Inquiry Method are higher than students taught by the conventional Method. Thus The Inquiry Method is suggested to be applied in English language learning at the middle level (SMP or SMA / SMK).
2. English teachers should expand knowledge of theories and strategies of learning methods such as The Inquiry Method.
3. Educators should have techniques to improve students' motivation in the classroom. Some things that can be done educators include:
   a. explain or show why learning is important.
   b. give students multiple opportunities to define the goals and subject matter.
   c. create an atmosphere until the students are curious about the subject matter.
   d. prepare the game or stimulation.
   e. set learning objectives.
   f. connect the lesson to the student's needs.
   g. assist students in developing students' ability to be active.
h. give praise until students feel comfortable in learning

REFERENCES