

The Application of Student Teams Achievement Division to Increase the English Language Learning Achievement among College Students

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Abstract – The ASEAN Economic Community has created a free market in capital, goods and services, and also labor. One of the consequences of the agreement MEA is the current impact of skilled labor. Towards the MEA, Indonesia as one of the participating countries is expected to prepare a strategic move, especially in the education area where education institutions need to improve their quality standards so that graduates are prepared to face the competition. One preparation is by increasing the English language proficiency of the University graduates. But mastery of English language in Indonesia has not fully optimal, which is characterized by being in an intermediate position compared to other ASEAN countries. The mastery of English language itself is influenced by affective filter such as motivation, self-confidence and anxiety. Therefore, the teaching and learning atmospheres that minimize the affective filter is needed in order to improve the mastery of a foreign language. STAD is one way of cooperative learning that known to be effective. Besides being able to reduce anxiety, it also improves motivation and increases the learning outcome in various subjects (Santrock, 2011; Slavin, 2006). In learning English language itself, Glomo-Narzoles (2015) found the Student Teams Achievement Division has a positive effect, but Khan (2011) found that Student Teams Achievement Division does not have a significant effect. Furthermore, Bindarti, Setyawan and Sudarsono (2013) states that more research related to the effectiveness of Student Teams Achievement Division in improving the results of learning English is needed.

This study was aimed to test the effectiveness of STAD in improving student achievement, especially in English course at X University. The learning achievement in this subject is measured by the change in the TOEIC test score as the standard of this University graduation. This study used an experimental group of 20 students who underwent a learning process with Student Teams Achievement Division. That experimental group was given pretest and post-test using the TOEIC test. Pretest and posttest results of the experimental group will be analyzed using paired t test statistical methods to see if there is a difference between the TOEIC test results before and after learning using the STAD method.

Keywords – STAD, Learning Achievement, University Student, English Language.

I. INTRODUCTION

Indonesia is one of the country that joins the ASEAN Economic Community (AEC). AEC started in end of 2015. AEC is the realization of a free market in Southeast Asia that has previously referred in the *Framework Agreement on Enhancing ASEAN Economic Cooperation* in 1992. AEC has also created a free market in capital, labor, goods and services. One consequence of the

AEC agreement is the impact of skilled labor flows, and the impact of free capital flows. In facing AEC, Indonesia is expected to prepare strategic steps, especially in the field of education. This is because education is one of the qualified human resources (HR) creator that in order to fulfill the human resource demand. Therefore, it is necessary to improve the standard quality of the school and university so that their graduates are ready to face the competition (Amaliah, 2015) [419].

The position of English as a language of knowledge and language of international communication, makes it an important tools especially to face the era of globalization and to improve the competitiveness of the nation. Many citizens of various countries use English as a means of communication in important international meetings (Mapiase & Sihes, 2014) [113]. The function of English is not only as a tool or medium to communicate among nations but is increasingly widespread and becoming important tools, ie as a language of science, technology, socio-economic, cultural and even art. English is also necessary in the world of work.

In order to prepare its graduates entering the competitive world of work, the X University mandates English courses for all students with minimum the TOEIC score 550 as graduation requirement. "TOEIC" is short for Test of English for International Communication. The TOEIC test is an English proficiency test for people whose native language is not English. TOEIC test scores show how well people can communicate in English with others in the global work environment. This test measures only the type of English used in everyday activities especially for applying for a job or getting career promotion (Hidayati & Rizka, 2015)[1]. Having English courses as compulsory subject with TOEIC score as graduation requirement aimed to prepare its graduates in facing the world of work where English is a global language that will be widely used in the world of work later.

However, from the results of Christopher McCormick's study, a researcher of *EF research* in 2015, Indonesia's position compared with the ASEAN countries in terms of *English Proficiency Index* (EPI) Indonesia is still in the middle position. The highest EPI is Malaysia and the second is Singapore, followed later by Vietnam, Thailand and Cambodia. So it appears that the competitiveness of Indonesia among the ASEAN countries are not maximized (EF, 2015) [31]. The phenomenon of the less satisfactory English learning result also happened to the students of X University, where from 1958 students who follow this course, only 615 students who meet the minimum

graduation score (550 TOEIC Score), the rest of the students can not reach the minimum TOEIC score as required (X University Language Center, 2016) [1]. From result of Sulistiyono's research (2013) regarding student's satisfaction of studying in the X University showed that student satisfaction level is 75,26% and it is suggested that lecturer pay attention to student's capability to study and pay attention to part of lecture material that is not yet understood by student [249-252].

Students generally are weak in English language learning were found in many parts of the world, especially for the countries that English is not spoken as the mother tongue. It has been generally well-known that most people faced some problems in learning English as a second or foreign language in non-English speaking countries (Rany, Lai Mei & Zainoel Abidin, 2013) [179-181]. Indonesia uses Bahasa Indonesia as a national language and Indonesia is also noteworthy in being the only country of ASEAN that has not made English a compulsory part of the primary curriculum (Kirkpatrick, 2012) [7]. Therefore it is necessary to conduct research that can explore the ways of teaching that can improve the academic achievement of students especially in English subjects to improve their English skills in order to prepare themselves in facing AEC.

Krashen (2009) [30] explains that the mastery of a person's foreign language will be more effective if affective filters can be minimized. Motivation, low anxiety and high confidence (positive) give low affective filters so that the learning environment that causes these things will support the use of inputs to improve language acquisition. Furthermore, Krashen (2009) [33] also describes that affective variable is important in the teaching of foreign languages where the input factors of language is an important factor (input hypothesis), but the affective filter factor (*affective filter hypothesis*) that allows the input is utilized or not in the learning process. Thus, affective factors play a role as a determinant of input acquisition. Motivation, trust and anxiety of individuals when learning a language is one of those affective factors. Therefore, Krashen (2009) [31] states that the purpose of teaching is not only to provide inputs of lesson material to be understood but also to create a situation that encourages low input acquisition filters. Therefore, effective language teachers now not only need to provide the material but also need to create an atmosphere of learning that does not make students feel anxious (Krashen, 2009)[32].

In order to increase English language learning achievement, the researchers are interested in knowing more about the effectiveness of the learning model *Student Teams Achievement Division (STAD)* in improving student achievement, especially in the subject of English. Santrock (2011) [343] and Slavin (2006) [272] states that *STAD* is one form of effective cooperative learning method. Cooperative learning can minimize affective filters as reported by Orariwatnakul & Witchadee (2012) [93] that mentioned affective learning provides a secure learning situation with opportunities to discuss, create and think in groups rather than individual learning in the classroom. In such situations, students are more comfortable to learn and try new ideas. Mastery of language can occur in a situation

that is mutually supportive, friendly, motivating, communicative, developmentally appropriate stage and full of feedback. In addition, In Santrock (2011) [342] stated that *STAD* as a form of cooperative learning also increase the motivation of students.

Furthermore, Santrock (2011) [343] explains that cooperative learning itself can be effective when rewards are given to groups and each individual plays a role. In *Student Teams Achievement Division*, the group with the highest score will be awarded and the recognition score that the group receive is depend by the team member improvement score (Slavin, 2006 [272]; Santrock, 2011[343]). Thus *Student Teams Achievement Division* in mentioned as an effective form of cooperative learning (Slavin, 2006). Slavin (2006) [272] and Santrock (2011) [343] also explained that cooperative learning can improve student learning outcomes in various fields. Santrock (2011) [343] explains further that the *Student Teams Achievement Division* is very effective in learning situations with specific goals or problems with specific answers, such as math, language, geography and science (Santrock, 2011)[343].

Results of previous studies related English language subjects, Glomo-Narzoles (2015) [6] states that the *Student Teams Achievement Division* has a positive influence on the results of English learning. While Khan (2011) [213] found that *Student Teams Achievement Division* does not have a significant effect on English learning results. Furthermore, Bindarti, Setyawan and Sudarsono (2013) [220] suggested that more research is needed to be done related to the effectiveness of *Student Teams Achievement Division* in improving the English learning results.

Based on the description above, the researchers wanted to examine further whether the application of *Student Teams Achievement Division* can improve the academic performance of students who are currently taking English language courses in X University.

II. METHOD

A. Research Methods

This study was using quasi-experimental research method where participants were not randomly selected (Creswell, 2014) [215]. The design of this study was *one group pretest and post test design*. In this design, a pretest and post test was executed to measure the students English capability before and after the intervention. Measurements were made by giving the TOEIC test. Participants in the experimental group will be manipulated by the provision of course materials in English with *Student Team Achievement Division* methods for five sessions. After given the English course material using of *Student Team Achievement Division* method up to 5 sessions, the group were measured again (*posttest*) by giving the same TOEIC test to see each participant score after receiving the learning sessions using *STAD*. The score were analyzed using statistical analysis.

Table 1. Research design

Group	O 1	X	O ²
experiment	Pretest	Student Teams Achievement Division	Posttest

B. Research Participants

Characteristics of the subjects in this study were (a) X university students who followed English courses (b) Never fail or repeated English courses before and (c) were 18-23 years old. Feldman, Martorell, & Papalia (2012) mentions early adulthood at age 18 to about age 40. Early adult age is a critical age of language ability and at this stage, one of the developmental tasks is work adjustment where students have started preparing themselves against the world of work (Feldman, Martorell, & Papalia, 2012).

The sampling technique in this study was non-probability purposive sampling, where the subjects were selected based on specific criteria set by the researchers. The population in this study was one class consisting of 20 students. The determination of group members in this experimental group was using matching techniques. The experimental group in this study were selected because the group members did not fail or ever repeated the English subjects before, therefore, it is assumed that their English competency were equivalents.

C. Measurement Research

The English learning achievement in this study was measured using the TOEIC test. TOEIC has 200 statements using multiple choice to answer the question. The statements consist of 100 questions to test listening skill and 100 questions to test reading skill. The questions presented in closed question form by providing four alternative answers a, b, c and d.

D. Data Analysis Process

Data obtained based on pretest and post test results will be analyzed using SPSS 15.00 program. Pretest and post test data results from TOEIC test scores were analyzed using *Paired Sample T Test* to determine differences in the TOEIC data from the pretest and post test experimental group result, before and after using Student Team Achievement Division in learning in order to see the effectiveness of the *Student Team Achievement Division* in increasing the students English learning achievement.

III. RESULTS

A. Quantitative Analysis Result

The data of this research is the TOEIC score of experimental group students who get lessons using STAD method. After the pre-test and post-test carried out, the obtained data was analyzed using *Paired Sample T Test* to see the difference in student learning as measured from the TOEIC scores before and after the learning process using STAD method.

Table 2. Overall TOEIC test *Pre-test* and *post test* scores data Analysis

		Paired Differences					t	df	Sig.2 tailed
		Mean	Std. Deviation	Std. Error Mean	Interval of the				
					Lower	Upper			
Pair 1	Pre test Post test	-147.250	88.116	19.703	-188.490	106.010	-7.473	19	.000

From the results of *Paired Sample T-Test*, it is known that the correlation value is 0703 to 0001, which means there is significance relationship between the teaching method with the results of before and after test. From the testresult, It is also known that $t = -7,473$ and $p = 0.000 < 0.01$ which means that there is a difference between the test results before and after the intervention and there is an increase in the results of learning achievement from the TOEIC score of the participants after given a learning process with STAD method. This indicates that giving STAD method in English subject can improve student's learning achievement.

Table 3. Data Analysis Pre-test and Post test sub test the ability to hear on the TOEIC test (listening skills)

		Paired Differences					t	df	Sig.2 tailed
		Mean	Std. Deviation	Std. Error Mean	Interval of the				
					Lower	Upper			
Pair 1	Pre test Post test	-62.250	38.302	8.565	-80.176	-44.324	-7.268	19	.000

Based on the results of *Paired Sample T-Test* on the TOEIC listening sub-tests pre-test and post-test score, it is known that the correlation value is 0.875 with 0.000, significance score which means there is a very good relationship between the teaching methode with the results of TOEIC listening subtest score. From the data analysis, it is obtained that the t score is -7.268 and p score is 0.000 which means that there is a difference between the results of listening sub test before and after the intervention and there is an increase in listening sub test results. It is seen through the Participants TOEIC score especially on the listening sub test after they were taught using STAD method. This indicates that STAD method applied in teaching English Language is effective to improve student achievement, especially in listening skills sub test.

Table 4. *Pre test* and *Post test* TOEIC reading skill sub test data analysis

		Paired Differences					t	df	Sig.2 tailed
		Mean	Std. Deviation	Std. Error Mean	Interval of the				
					Lower	Upper			
Pair 1	Pre test Post test	-85.000	67.180	15.022	-116.441	-53.559	-5.658	19	.000

From the results of *Paired Sample T-Test* on the TOEIC reading sub tests pre-test and post-test score, it is known that the correlation value is 0.460 with the significance score is 0.041. It means that there is a correlation between the teaching method with the results of reading Student skills, even though the correlation is not too strong. From the data analysis, it is obtained that the *t* score is -7.268 and *p* score is 0.000 (<0.01) which means that there is a difference between the results of the reading sub-test score before and after the intervention using STAD method and there is an increase in reading sub test results. This indicates that STAD method applied in English Language teaching is effective to improve student achievement, especially in TOEIC reading skill sub test.

B. Discussion

From data analysis calculation, the overall ToEIC test score showed that applying STAD method in English language subject can improve student achievement. It can be seen that the results of this study is in line with the statement of Slavin (2006) [272] that mention the *Student Teams Achievement Division* is a form of effective cooperative learning method. Slavin (2006) [272] and Santrock (2011) [343] also explained that cooperative learning can improve student learning outcomes in various subjects. Santrock (2011) [343] explains further that the *Student Teams Achievement Division* is very effective in learning situations with specific goals or problems with specific answers, such as math, language, geography and science. English courses with measurement test for learning achievement using TOEIC score is a form of learning situation with specific goals and specific answers because TOEIC test use multiple choice for the answer. This study results support the discovery of Glomo-Narzoles (2015) [6] which states that the *Student Teams Achievement Division* has a positive influence on the English learning results.

More specific, the results of this study indicate the application of STAD methods in English courses is effective to improve student achievement, especially on listening skill sub test. Research with STAD strategy performed by Cahyaningrum (2012) [119] with the title "The Effectiveness of Student Teams-Achievement Divisions/STAD (Compared with Lecture Method) in Teaching Listening of Students' Self-Esteem" shows that Student Teams-Achievement Divisions/STAD is more effective to teach listening skills. This study mention that students with high self-esteem have better listening skills and there is relationship between STAD teaching methods with *self-esteem*.

Dulay and Burt explained that affective filters play a role in blocking inputs used in language acquisition. Those obstacle filters are variety of obstacles that occur in the operationalization of LAD (The Language Acquisition Devices). LAD is a language acquisition tools. It consists of motivational learning environment, low anxiety and an optimal (positive) self-esteem. Those variables have a low affective filter so the learning inputs can be used optimally to improve language acquisition (Krashen, 2009) [31]. Cooperative learning can minimize affective filters as reported by Orariwatnakul & Witchadee (2012) [93].

Orariwatnakul & Witchadee (2012)[93] mentioned that affective learning provides a secure learning situation with opportunities to discuss, create and think in groups rather than one person directly perform alone in the classroom.

While on the reading skill subtest, this research shows that the application of STAD method in English subject is effective to improve student achievement, especially in TOEIC reading skill sub test. The Chusnatayaini and Wulandari (2013) [1] studies also show that students with high self-esteem have better reading skills in English and the experimental results show that peer tutors can improve students' reading ability because they can improve their self esteem. One of the learning components in the STAD is a team study where peers in the group study together and also teach their teammate (Slavin, 2006) [257]. STAD as a form of cooperative learning method can also improve the self esteem of the students in learning (Slavin, 2006) [262]. In the Aprianti (2013) research [9-11], is stated that students' reading ability can be improved through learning by STAD technique because students' attitude and motivation become positive during teaching and learning process using STAD method. Those changes support the students' reading skill learning (Aprianti, 2013) [9-11].

IV. CONCLUSION

From these results, it was concluded that the research hypothesis can be accepted. There are differences in English Language of student achievement who were taught using *Student Teams Achievement Division*. From the data analysis, we can conclude that STAD method in English subject can improve student's learning achievement. Furthermore, based on the TOEIC score which become the standard of student achievement in English subject, there are differences on both TOEIC test subtests, listening and reading ability, between pretest and post test score. The score on both subtest are increased after the students were taught using STAD method.

With regard to the above conclusions, the suggestions can be given as follows:

1. Theoretical / Academic Aspects

- The results of this study can be used as a reference for next researchers in the future to improve learning achievement, especially English language courses.
- Further researchs on the method of Student Teams Achievement Division are suggested to equipped the research with a control group so the results obtained would give more comprehensive comparison.

2. Practical Aspects

- Research results can be a good source of reference as an alternative way of teaching, especially in English language learning.

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