

# THE IMPLEMENTATION OF STUDENT TEAM ACHIEVEMENT DIVISION (STAD) TECHNIQUE IN TEACHING READING

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## **Abstract**

Penelitian ini bertujuan untuk (1) menemukan apakah mengajar menggunakan teknik STAD dapat memperbaiki pemahaman membaca siswa, dan (2) meneliti aktivitas siswa dalam proses belajar mengajar melalui teknik STAD. Subjek dalam penelitian ini adalah siswa SMA Negeri 1 Gunung pelindung kelas XI yang terdiri dari 31 siswa kelas IPA2. *One-group pre test post test* digunakan untuk menganalisis signifikan perbedaan. Selain itu, observasi dilaksanakan untuk melihat aktivitas siswa dalam proses belajar mengajar. Hasil penelitian ini menunjukkan bahwa rata-rata pre test adalah 55.56 sedangkan rata-rata post test 64.91. Nilai signifikan ( $p=0.000$ ,  $p<0.05$ ). Ini menunjukkan bahwa hipotesis diterima. Dengan demikian, teknik STAD dapat digunakan dan direkomendasikan sebagai teknik untuk mengajar khususnya di kelas membaca.

The research is aimed to (1) find out whether teaching using STAD can improve students' reading comprehension, (2) to investigate students' activity in teaching learning process using STAD technique. The subject of this research was the second grade student of SMAN 1 Gunung Pelindung consisting 31 students in class IPA2. One group pre-test post-test design was carried out to analyze the significant difference. Based on the result of the research, it can be reported that the mean of the pre-test is 55.56 while the mean of post-test is 64.91. The significant (2-tailed) value was ( $p=0.000$ ,  $p<0.05$ ) it showed that the hypothesis was accepted. Therefore, STAD technique can be applied and recommended as the technique to teach in reading class especially.

**Keywords:** aspects of reading, reading comprehension, STAD technique.

## **INTRODUCTION**

Reading is the process of comprehending the text, it needs the student's ability in understanding the meaning of the text that they are reading. Grabe and Stoller (2002:9) state that reading is the ability of drawing meaning and interpreting information in the printed page appropriately. It means that they are not only expected to read the whole of the text but also to comprehend the meaning of the text and understand what happen with the text. In general, the writer found that students still had difficulty in comprehending the idea of the text. There are some factors that cause the students' difficulties in comprehending the text: (1) students' lack of vocabulary and grammar, (2) students' interest in the reading text, (3) teachers' inability to guide and manage their class, and (4) students' inappropriate reading strategy.

According to Nuttal (1985) there are five reading aspects (Nuttal: 1985) which help the students to comprehend the English text well, they are: main idea, specific information, references, inference, and vocabulary. Reading with comprehension one will recognize the purpose and the important point of the text besides understanding the surface meaning of the text. Comprehending a text is an interactive process between the readers' background knowledge and the text itself. Bondaza et al. (1998) who argues that reading comprehension refers to the act of thinking or processing in which the reader construct meaning before, during, after reading by incorporating the text information with the prior knowledge. Reading comprehension is the ultimate goal of learning to read and it is the foundations for education.

Based on the experience in Teaching Practice Program, the writer found the students had low motivation. In reading activities and the teaching learning process in reading class have been dominated by the teacher, while the students tend to be passive. It means that during the process of study in class the teacher only gives the material to the students after that students do the work individually. It was about 20 minutes

teacher asked to the students to answer the questions. This type of teaching reading activity did not create the students to be active to respond the text. Consequently, not all of the students take in part in this learning process. In order to minimize the problems above, this research was focused on how to create situation where the students can be active in reading process. One of the cooperative learning techniques that are expected to be useful in teaching reading is STAD.

Brown (2001: 264) states reading is a process interrelated with thinking and with other communication abilities listening, speaking, and writing. Reading is process of reconstructing from the printed pattern on the ideas an information intended by the author. Based on the opinion, it is important because reading is the reader's activity in order gets information from printed text using eyes and brain to understand what the writer thinks in their written. It means that the readers always activate their minds to get meaning and information while interacting with the written text.

Student Team Achievement Division (STAD) is one of cooperative learning techniques in which students work in groups of four or five. The groups consist of students from different academic levels, gender, and background ethnics. The different academic levels mean that there must be students with high, average, and low ability in a group. They are responsible for discussing and working in group before answering quiz individually. It means that students do an understanding in a group before teacher gives the quiz individually. Newman and Thompson(1987) states that STAD is the most successful cooperative learning technique to improve students' achievement. According to Slavin (1994), STAD is a cooperative learning method for mixed-ability groupings involving team recognition and group responsibility for individual learning. Students are assigned to four or five member learning teams that are mixed in performance level, gender, and ethnicity. The teacher presented a lesson, and then students work within their teams to make sure that all team members have mastered the lesson. Finally, all students took individual quizzes on the material, at which time they may not help one another.

According to Slavin (2000: 143), STAD has five major components: (1) class presentation, (2) teams, (3) quizzes, (4) individual score, and (5) team recognition. In STAD, the teacher presents a lesson and then students work within their teams to make sure that all team members master the lesson. Then, all students take individual quizzes on the material, at which time they may not help one another. According to Kessler and Kagan (1992: 8) and Johnson (1994), there are at least five key elements in STAD. Those elements are positive interdependence, face-to-face interaction, individual and group accountability, interpersonal and small group skills, and group processing. The first element is positive interdependence. Positive interdependence means each group member's efforts are required and indispensable for group success. In other words, when one student achieves, others benefit, too. Positive interdependence is contrasted with negative interdependence and non-interdependence. Students are negatively interdependence in competitive situations, it means that when one student achieves, others loss. Examples of negative interdependence are grading on the curve, posting only a few (the "best") papers, or calling on only one student when several raise their hands. Students are non-interdependence during individualized instruction if students are all working alone at their own pace on individual tasks and the grades of each have no relation to those of other students.

The second element is face-to-face interaction. In face-to-face interaction students have to arrange themselves, so that they are positioned facing one another, have directly eye-to-eye contact and face-to-face academic conversation. In this element, there are some cognitive activities and interpersonal dynamics that may only occur when the students do real work together in which they promote each other's success orally explaining how to solve problems, discussing concepts being learned, checking for understanding, teaching one's knowledge to others, and connecting present with past learning. The third element is individual and group accountability. STAD technique in this element should not consider individual is success only by having

individual quiz regularly, but the students work in group must be accountable for achieving its goals and must be accountable for contributing each member's work to achieve the common goal. According to Johnson et al (1998: 14), a teacher should assess each student's performance and return the result to the students as soon as possible in order to ascertain who needs more assistance, support, and encouragement in completing the assignment.

The fourth element is interpersonal and small group skills. The students are required to possess interpersonal skills and group skills in order to gain knowledge of the subject matter. Further, Johnson (1984) claim that the students must be given how they analyze their learning group in order to maintain effective working relationships among the group's master. They also add that social skills for effective cooperative work do not only appear when cooperative lessons are employed but also must be taught, such as in leadership, decision-making, trust building, communication and conflict-management, and students should be motivated to use the skills successfully. The fifth element is group processing. Johnson et al. (1999) state that group processing is important to make cooperation work by structuring group processing. It only occurs when students are able to achieve their goals and maintaining relationships. Moreover, the purpose of the group processing is to improve the effectiveness of the group's member in contributing to the joint efforts to achieve the group's goal. Without group processing, cooperative groups are often only groups of students sitting together working on the same task.

From the descriptions above, it can be stated that STAD technique gives students the opportunity to collaborate with peers in the form of group discussions to solve a problem each group member. Thus, STAD is worth a try as one of techniques in teaching reading comprehension. Hopefully STAD technique can improve the students' reading because after using this technique make motivate the students in learning process. It also can motivate the students' learning especially in reading comprehension.

## **METHOD**

This research used One Group Pre-Test Post-Test Design to see the significant difference before and after being taught through STAD technique. Two classes were chosen by the writer, one class as the try out class and the other as the experimental class. The design of the research was presented by Hatch and Farhady, 1982:20 as follow: T1 X T2 where T1 (Pre Test), X (Treatment), and T2 ( Post Test). The subject of this research was the all second grade students of SMAN 1 Gunung Pelindung. Two classes were selected randomly through randomly by using lottery.

The writer checked the students' reading comprehension achievement by giving two reading tests to the students. The reading tests were pre test and post test. The aim of the pre test was to know the students' basic reading comprehension achievement before treatments. Then, the purpose of the post test was to know the result of the students' reading comprehension achievement after treatment. The instrument was objective test in multiple choice, while the total items of pre test and post test were 40 and each item had four options that were : a, b, c and d. In addition, Observation by observers was used in this research, to know the students' activity in the teaching learning process after being taught through STAD technique.

In collecting the data, the writer administered a pre test, treatments and pos test. Then, she analyzed the result of those three activities which could be clarified as follows: (1) Pre Test; the pretest was administered in order to find out the students' reading comprehension achievement before giving treatment. (2) Post Test; post test was administered at the end of treatments in order to find out the results of students' reading comprehension achievement after the three-time treatments. (3) Observation; the observation is conducted to investigate the students' activities in teaching learning process using STAD technique. The observation sheet was used to find out the students' attention to the teacher's, the students' explanation responding to the teacher instruction and question, and also students' group activity. Raters were used

in collecting the data to ensure the reliability of the observation and to avoid the subjective of the research. In case that the raters were two English teachers at SMAN 1 Gunung Pelindung, who observed the class during teaching learning process.

## **RESULT AND DISCUSSION**

Before the pre-test was conducted, the writer administered a try out test first. It was chosen randomly to analyze the reliability, level of difficulty, and discrimination power to achieve a good instrument for this research. The number of the try out was 50 items that the time allocation was 90 minutes. Those items were in the form of multiple choices, which contained four options of answer for each (A, B, C, and D). After analyzing the data, the writer got 24 items were good, 21 items were revised and 5 items should be dropped.

To analyze the reliability of the test, the researcher was used Split-half technique to estimate the reliability of the test and to measure the coefficient of the reliability between odd and even group, *Pearson Product Moment* formula was used. The result showed that the reliability of the test was 0.98. The purpose of conducting the pre-test was to determine the students' basic reading comprehension before the treatment. The material used narrative text. The mean of pre-test was 55.56. The highest score in pre test was 72.5; the lowest score was 40; the median was 52.50; and the mode was 50. After implementing three treatments by STAD technique, the post-test were administered to know the students' score whether was a significant after being taught through STAD technique. The post-test items used narrative text as the material using STAD technique. The mean of the test was 64.91. The highest score was 82.50; the lowest score was 35; the median was 65; and the mode was 65.

According to Nuttal (1985), the content being measured was students' skill in reading comprehension, i.e. determining main idea, finding the detail information, references, inference, and understanding vocabulary. Table below provided the students' gain of each aspect in reading comprehension.

### The Result of Elements of Reading Comprehension

No.	Elements of Reading Comprehension	Pre-test (%)	Post-test (%)	The Improvement (%)
1.	Identifying the main idea	70(45.14%)	96(61.93%)	46(24.88%)
2.	Specific Information	232(48.38%)	272(67.48%)	40(19.10%)
3.	Reference	112(60.21%)	143(76.88%)	31(16.67%)
4.	Inference	184(53.95%)	229(67.15%)	45(13.20%)
5.	Vocabulary	88(56.77%)	109(70.30%)	21(13.53%)

Based on the table 12 above, it can be concluded that STAD technique improved the students' reading comprehension achievement in all elements of reading comprehension, such as determining the main idea (24.88% improved), the specific information (19.10% improved), reference (16.67% improved), inferences (12.20% improved), and vocabulary (13.53% improved). Moreover, STAD technique mostly improved the students' reading comprehension in determining the main idea, in which their ability in that element was 24.88% improved. STAD technique mostly improved the students' reading comprehension in determining the main idea, in which their ability in that element was 24.88% improved.

By STAD technique, it could be easier for the students to find the main idea of the text because during the group discussion process, they could build their ability in finding the main idea. It shows from the table above, the main idea is the highest improvement. Thus, their reading comprehension of elements of reading was improving, especially in determining the main idea which improved significantly. Vocabulary is the lowest improvement from the table above, the writer assumed that there were some difficult words in the test. It made the students lack of vocabulary,



most of them got problem in finding the synonym or antonym of a word which was written in the test, therefore in answering the test they have been confused.

### Paired Samples Test

	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair1 Posttest - Pretest	9.35484	5.20287	.93446	7.44641	11.26327	10.011	30	.000

Based on the result of hypothesis testing above, *Repeated Measured T-Test* was used and also statistically tested by using statistical computerization (SPSS 17), in which the significance was determined by  $p < 0.05$ . The T-test revealed that the result was significant ( $p = 0.00$ ). Thus, there was a significant difference of the students' reading comprehension through STAD technique. In other word,  $H_0$  was rejected and  $H_1$  was accepted.

The observation was conducted in the experimental class to find out the students' activity in teaching learning process after being taught by implementing STAD technique. Three treatments were applied in the class. Each treatment had the same steps and procedure of STAD. The students were grouped into seven groups based on their pre test score. Each group consists of 4 - 5 students who have low and high achievement to maximize their learning results. In organizing the group, the students were divided into two categories: upper and lower students. Upper students belong to the students who got scores above the students' mean score ( $>55$ ) while lower students belong to the students who got scores below the students' mean score ( $<55$ ).

In the first treatment conducted on Saturday, April 6<sup>th</sup> 2013, the teaching learning process was started by the common activity before the class began. The class was

opened with greeting that was responded enthusiastically by students, then, it was followed by asking their condition. There was one student who came late (his name was Ali Mustofa), the writer commanded him to sing a song in front of the class and she asked him not to come late again. After checking the students' attendance list and knowing that the students had been focus, the writer introduced STAD technique and its procedures to students since this was a new technique for them. At this first treatment, the students were divided into seven groups. Then they sit in a group based on students' grouping.

At the beginning of teaching learning process, the students were given a brainstorming by asking some information related to the topic e.g. "*Do you know about narrative text?*", "*What do you know about narrative text?*", "*Have you ever read narrative text?*" It functioned to activate their background knowledge of narrative text. In this step, there were only few students who pay attention by answering the questions actively. After doing brainstorming and explaining what narrative text was, the students were given a chance to ask questions based on the explanation. But, there was no student asking question. Then, the writer distributed narrative text entitled "*Ali Baba*" to each group. The study investigated the five sorts of reading comprehension: determining the main idea, specific information, references, inferences, and vocabulary of the text. The students were told that they had to discuss the material with their groups, did the assignments, and made sure all members of the group understood the lesson.

The writer controlled the students' activities while they worked in their groups. During this teaching learning process, most of students had not cooperated well yet to share or discuss their opinion. They still needed the writer to translate some sentences and asked for guiding them answered the questions. Most students, especially the lower students' ability, seemed to be passive. Meanwhile, there were also students who chose to find out the answer by themselves while some of them enjoy cooperating with the other members in a group. About this matter, the students were addressed to discuss their opinion with their own group. However, some groups could

cooperate well as what the writer's intended. After group working, the writer evaluated the students' findings about the lesson by asking the students to present their works in front of the class while discussing it together. In order to know the reading comprehension of lower achievers after having a group work, the students were asked some questions related to the text. In this first treatment, most of students still had difficulty in inferences and specific information because they were lack of vocabulary.

In the second treatment, on Wednesday, May 8<sup>nd</sup> 2013, the students were given the material about *fable* entitled "*The Mousedeer and the Snake*". The students worked in the same groups. Because the class had ever given the same procedures and they thought that the text was more interesting and easier, the teaching learning process ran better than the first treatment. The writer remembered the students that if the students want their team to get team rewards, they must help their teammates to learn the material, they must encourage their teammates to do their best. So, during the teaching learning process, students seemed to pay more attention to the material. They shared their own opinion and discussed the material with their group. The writer agrees with Slavin (1995) who argues that group contingency is essential if a small group structures are to enhance achievement. By group contingencies, the behavior of one or more group members brings rewards to a group. In this treatment, students had already been able to determine the main idea, its specific information, and made inference of the text.

In the third treatment, on Saturday, May 13<sup>th</sup> 2012, the students were commanded to discuss about narrative reading text entitled "*The Prince and His Best Friends*". The students were given brainstorming by asking several questions e.g. "*Do you have a best friend? What is your best friend like?*", "*What will you do if your friend betrays you?*", "*What will you do if one of your friends is in trouble?*" It is used to build the students' though before they learn further about narrative text. In this step, the class atmosphere was more active from the previous meeting. After distributing the task sheet, the students were invited to work in groups. In their group they discussed about

what their friends do not understand yet such as how to find out the main idea, specific information/details, reference, inference, , and understand vocabulary stated in the text. They solved their problems together. In doing the activities if their partners made some mistakes, smarter students in group would help their friends to comprehend the text. In this meeting, the students became actively involved in discussion phase.

After the students finishing the task, the writer conducted a class discussion to discuss the material given. Most students were more confident in elaborating their idea. They were also able to express their critical thinking, that was, the moral message of the text. It was noted that in this third treatment, the teaching learning process was more interesting since the students have been motivated to get involved in the learning process. Meanwhile, from the observations of students' activities that were conducted by two observers during the three meetings, we could see that the students' activity in teaching learning process was in a good level. The observation data showed that students' activities in STAD could fulfill the criteria of good level in which the number of active students was more than 75% from the total students in the class (Arikunto, 2006:7).

## **CONCLUSIONS AND SUGGESTIONS**

After conducting the research in SMAN 1 Gunung Pelindung and analyzing the data, the writer draws the conclusion as follows:

1. There was a significant difference of students' reading comprehension before and after being taught through STAD technique. This could be seen from the pretest and post test scores which showed that the students' mean score of post test in experimental class (64.91) was higher than pre test (55.56) with the gained score was 9.35. In which significance value of was determined by  $p < 0.05$ . The t-test revealed that the result was significant ( $p = 0.000$ ). Thus, hypothesis was accepted. It

means that STAD technique can improve students' reading comprehension achievement.

2. STAD technique can be used for teaching reading to improve the students' activity in learning process. In reading, it is more effective to help students in determining the main idea of the text. Beside that, STAD is also a successful technique which can improve students' activity. Based on the observation data during three meetings, there were 19 students (61.29%) in the first meeting, 23 students (74.19%) in the second meeting, and 30 students (83.87%) in the third meeting who could fulfill the indicator of a good level in teaching learning process. That happened because STAD can motivate students to study since they work within their groups.
3. STAD technique also contributes a positive effect on the teacher's teaching performance. Since in implementing STAD technique, the teachers were asked to create a strategy that made the students active in learning process. Moreover, the teachers were demanded to create interesting media materials since an interesting media and materials would be easily attract students' attention and participation.

Regarding the conclusion states previously, the writer would like to propose several suggestions as follows:

1. In this research, it was found that vocabulary aspect needs to be paid more attentions since this aspect became the low achievement during the application of STAD Technique. This can be done by giving more highly varied vocabulary in order to enrich the students' words list. The teacher may ask the students to make a sentence from those varied words to strengthen their comprehension on the meanings of the words in various contexts.
2. An English teacher is suggested to use STAD technique, especially in reading skill to make students more comfortable in learning process and automatically

can improve their reading ability. The teacher should be able to give some rules and control during the teaching learning process well since the biggest problem for the teacher when using STAD technique maybe the noisy classroom and time consuming.

3. Since STAD technique in teaching reading comprehension is applied at the second grade of Senior High School, other writers can conduct this technique on different level of students (it can be Junior High School) or on different skill (it can be speaking).
4. The future writer, who will conduct the same research, should conduct it by considering the time allocation for the treatments. Because of the limitation of time, the target material may not be explained fully when the class is not in a good condition.

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