

**THE CONTRIBUTION OF STUDENTS TEAM ACHIEVEMENT DIVISION
(STAD) AND MOTIVATION TOWARDS WRITING
(THE STUDENTS OF ENGINEERING FACULTY MUHAMMADIYAH
UNIVERSITY OF METRO)**

Fenny Thresia

Fenny.thresia@yahoo.com

Teacher Training and Education Faculty, Muhammadiyah University of Metro, Metro Indonesia 34111

Abstract: The purpose of the present study is to explore the positive effects of Student Teams Achievement Division (STAD) on other important factors such as students' motivation. STAD was used with thirty second-grade students and was compared to thirty second-grade students who worked in groups lacking the key components of STAD. Both groups completed pretest and posttest and responded in motivational questionnaire which measured changes in exposure to writing skill in English. The findings showed that (1) there was a significant progress within each group, (2) there was also significant mean difference between the experimental and control group with the contribution of the STAD approach to students' motivation and to writing achievement.

Keywords: *Student Teams Achievement Division (STAD), motivation and writing skill*

Considering the importance of English as an international language used for communication among countries, Indonesian government provides students with English subject since primary school until university. The process of teaching English at school divided into four skills: speaking, listening, reading and writing.

Dealing with the teaching and learning, a conventional writing is assumed that students learn to write a language by studying its vocabulary, grammar and sentence structure, not by actually writing it. Since a conventional writing is always done simultaneously, it was observed that the students' writing proficiency average scores are not what the teacher expected. It was assumed that using various techniques may avoid the students' ignorance in writing activities.

The students are often able to speak successfully, despite making mistakes, whereas, in writing, mistakes maybe regarded as unacceptable, even if the message is communicated. It shows that writing is a complicated ability.

Davies (1998) supported this idea by stating writing is not simply speech written down on a sheet of paper, learning how to write in English is important for many learners. The ability to produce error-free writing is desirable, but the students can improve it by practicing a lot and focusing on communication and self-expression.

The researcher found in civil engineering class, many of her students disliked writing, especially in English. A teacher who does not try to see the real message behind these comments could easily become discouraged. Eventually, both the teacher and the students will hate writing. To prevent this, the teacher should consider what students actually mean when they say "boring", and the possibility that students are actually expressing their insecurity and lack of confidence in completing the task.

While students write composition in English, the experience can easily become overwhelming when students have lack of vocabulary, grammar, and

content knowledge. These frustrating writing experiences can result in decreased motivation to write in English a truly unfortunate consequence considering the importance of writing for most of our students. Nurturing students' motivation to write, therefore, should be an essential part of L2 writing instruction.

Being aware of such difficult condition above, the researcher wishes to change it and take the condition to betterment. Student Team Achievement Division (STAD), as a part of Cooperative Learning, can be a suggestion dealing with this problem. Davis (1999) thought that Cooperative Learning is helpful when the students are trying to learn information and concepts and preparing for class discussion and tests. It can be beneficial in many ways such as; as a source of encouragement when the students find their motivation to study is slipping. Felder and Brent (2001) added, for reluctant students, they will find it easier to ask a question in a small group. The students will become more committed to study because the group members are depending on each presentation and participation. Cooperative Learning may bring up ideas which never considered. The students can learn valuable new study habits from the other group members, and many more.

Descriptive text is rather complicated due to the complex requirement to construct the text. Hence, the choice of descriptive as the genre taught using STAD is considered as an eligible one. In short, in this study the writer would investigate the influence of STAD to teach descriptive writing to the second semester civil engineering students of University Muhammadiyah of Metro.

Concept of Writing

Doing writing is doing a number of activities that are relate to each other such as the process of setting goals, generating

ideas, making a draft, and so on. These activities have to be managed well to achieve the goal of writing. These activities need a lot of attention because they are not easy to do. In every steps of writing, the students will spend a lot of time to brainstorm the ideas, time to draft a piece of writing, review it, re-drafting, and so on. Writing cannot be done in a few of time.

Concept of Teaching Writing

Actually, writing a paragraph or an essay is the process of thinking. Once we begin to write, we think how to set goals, generate ideas, organize information, select appropriate language, make a draft, read and review what we have write, and the last revise and edit it. The more we think about how we do writing, the more difficult it becomes. But for EFL students the more they think, the more they trapped in doubt to begin writing. That is why the writer asked the students to write without paying any attention to the structure in the first step of writing or free-writing.

Concept of Student-Team Achievement Division (STAD)

From Cooperative Learning approach that the researcher will use in her research, the researcher plans to use Student-Team Achievement Division (STAD). In STAD, teams comprise four or five students who stand for a class-section of the class in terms of academic performances, sex and race or ethnicity. The major function of the team is to ascertain that all team members to do well on the quizzes. After the teacher's instruction, the team meets to study worksheets or other materials. Most often, the study involves students discussing problems together, comparing answers and correcting any misconceptions if teammates makes mistakes (Slavin, cited in Trianto, 2009)

Each student's grade was based on his or her own score on the quiz. But, at the same time, each student could

contribute to a group score by making improvements. Each student's contribution to their group's score was based on how well they did on the quiz compared to their own average score on past quizzes. Thus, a relatively low achiever can contribute as much to their team as a high achiever without doing as well on the quiz as their higher-achieving teammate. The group score was used to determine which groups receive rewards. In STAD, the preparation stage was the operation before the teacher started to teach one lesson; at this stage the teacher manage the classroom first. While operating classroom management, the teacher needs to group students, arranges the seat, and assign roles within each group (Trianto, 2009).

Motivation

Classroom learning environment plays important role in increasing students' motivation. There are many studies about this conducted in different countries. These reviews indicated that most of the studies investigated the nature of classroom learning environments using the perceptual measures approach in which teachers' and students' perceptions toward their classroom learning environments were measured using a survey-type instrument.

Wong and Chen (2009) also stated other factors that affected students' motivation in language learning. For example, individual differences, characteristics of the learners such as attitude, language anxiety, self-confidence, intelligence, field-independence and many other personal variables; the background of the learners, including academic grade, language examination grades, gender and home language. Research also suggested that a good classroom environment would enhance students' motivation in language learning.

METHOD

In this study, an experimental research is used. The researcher divided the students into two groups; experimental group used student-team achievement division (STAD) and control group (the group which is applied to conventional approach). For this reason, factorial design method is used. The researcher used factorial design to study the independent and simultaneous effects of two or more independent treatment variables on an outcome (Creswell, 2005). The diagram of factorial design is as follows:

Experi- mental	R	O ₁	X ₁	Y ₁	O ₂
Control	R	O ₁	X ₂	Y ₁	O ₂
Experi- mental	R	O ₁	X ₁	Y ₂	O ₂
Control	R	O ₁	X ₂	Y ₂	O ₂
Experi- mental	R	O ₁	X ₁	Y ₃	O ₂
Control	R	O ₁	X ₂	Y ₃	O ₂

(Mc. Millan, J. H & Schumacher, S. 2010)

Where:

- R = Random
- O₁ = Pretest
- O₂ = Posttest
- X₁ = STAD approach
- X₂ = Conventional approach
- Y₁ = High Motivation
- Y₂ = Middle Motivation
- Y₃ = Low Motivation

This design related can be illustrated as follows.

		Group Types	
		STAD approach (X1)	Conventional approach (X2)
Motivation	High (Y1)		
	Middle (Y2)		
	Low (Y3)		

The population of this study was the first years of even semester registered in academic year 2010/2011. There were 276 students in the population. They were class XA, XB, XC, XD, XE, XF, XG, and XH. In this study, the researcher used cluster random sample. The sample to be used is the first year students of SMA Negeri 4 Metro. Two classes were created in which one class becomes control class and another class to be experimental class. There were 30 students for experimental group, that was taught writing skill using student-team achievement division (STAD), and 30 students was grouped into a control group who was taught using conventional approach. In selecting the students the researcher used the lottery system. She wrote the students' names on small pieces of paper and rolled them up. Then, the researcher took randomly 6 papers from each class.

Trianto (2010), states that some teaching procedures using STAD are:

1. Preparing
Have teammates move their desk together or move team tables.
2. Teaching
The teacher explains the material
3. Having the students do the task
Teacher gives worksheet to each group, and then asks the students to discuss the tasks with their peers. The teacher should emphasize each group that they must learn the subject until all the members master the material. They should help each other. The teacher monitors each group while doing the task.
4. Giving the test
Then, the teacher asks the students to move on their chairs and an individual test is distributed to them. The teacher emphasizes the students do not help each other.
5. Summing the scores

The teacher sums the students' individual test score in front of the class

The researcher used *tests* and *questionnaire* as instruments for the current research. *Writing skill test* was used as substantial part of the experiment. The writing competence test was conducted as a *pretest* that is given in order to know the standard mastery of the sample students' writing ability before the experiment.

At the end of the experiment, the researcher gave the students a *posttest*. The aim of this test was to measure students' achievement at the end of the instructions, it was in the form of writing skill test.

In this experiment, projective test of writing competence in form of writing composition was used for pretest and posttest. This test asked the students to write a simple descriptive text consist of 200 – 250 words based on the topic given in 60 minutes. This writing text was used to measure students' achievement.

In order to understand the students' motivation toward learning English before and after the study, a questionnaire containing 18 items is developed by the researcher, adapted from Liang (2002).

FINDINGS

The results of the test were presented in the form of scores. The scoring system used range from 10 to 100. The highest writing score in the pre-test of the experimental group was 77.50, the lowest score was 66.50, and the mean score was 70.70. The highest writing score in the posttest of the experimental group was 89.50, the lowest score was 71.00, and the mean score was 79.07. While in the control group, the highest writing score of the pretest was 76.50, the lowest score was 68.00, and the mean score was 71.79. The highest writing score in the posttest was 85.50, the lowest score was

69.50, and the mean score was 73.85. Table 3 shows the score distribution of students' writing achievement.

Table 1

The Score Distribution of Students' Writing Achievement

Group	Scores						Mean Gain
	Pretest			Posttest			
	Low est	High est	Me an	Low est	High est	Me an	
Experim ental	66.50	77.50	70.70	71.00	89.50	79.07	74.89
Control	68.00	76.50	71.97	69.50	85.50	73.85	72.91

The Kolmogorov-Smornov test of the pretest result of the writing achievement of the experimental group showed that significance was 0.702. Since 0.702 is higher than 0.05, so it could be concluded that the data obtained were considered normal .

The results of the motivation questionnaire were presented in the form of scores. The highest motivation score of the experimental group was 3.83, the lowest score was 2.11 , and the mean score was 2.79. There were 5 students in the high motivation category, 17 students in the middle motivation category and 8 students in the low motivation category. The highest motivation score of the control group was 3.78, the lowest score was 2.06, and the mean score was 2.86. There were 7 students in the high motivation category, 18 students in the middle motivation category, and 6 students in the low motivation category. Table 4 shows the score distribution of students' motivation. The Kolmogorov-Smornov test of the result of the motivation questionnaire of the

experimental group showed that significance was 0.750. Since 0.750 is higher than 0.05, so it could be concluded that the data obtained were considered normal .

Based on the data analysis, the students' writing achievements taught using student-team achievement division (STAD) approach have a significant increase. It was indicated that teaching writing using student-team achievement division (STAD) gives a significant difference on the students' writing achievements than conventional method. It can be seen that there is a progress achieved by high motivation students, middle motivation students and low motivation students. The different achievement might only be caused by different teaching techniques used in the experiment and control group. The experiment group was taught using the student-team achievement division (STAD), whereas the control group was taught using the conventional approach.

Discussions

First, from the t-test analysis of the students' posttest scores in the experimental and control group that the p-output (0.021) was lower than mean significant difference at the 0.005 level. It was interpreted that the teaching of writing using student-team achievement division (STAD) approach is effectively applied in one of the groups. Or it can be interpreted that there was a significant difference between the teachings of writing using student-team achievement division (STAD) and conventional approach. It means that the null hypotheses is rejected and the alternative hypothesis is accepted.

Second, the t-test analysis of the students' writing achievements who are in high and low motivation taught using student-team achievement division

(STAD). From the statistic calculation using **independent sample** test was found the p-output (0.597). It means that the p-output was higher than the mean significant difference at the 0.05 level. It can be interpreted that the approach which was applied to develop the students' writing achievements effective to be taught in both groups. Or can be interpreted that there is no significant difference between teaching writing using student-team achievement division (STAD) towards high and low motivation. It means that the null hypotheses is accepted and the alternative hypotheses is rejected.

Third, the t-test analysis of the students' writing achievements who are in high and middle motivation taught using student-team achievement division (STAD). From the statistic calculation using **independent sample** test was found the p-output 0.099. It means that the p-output was higher than the mean significant difference at the 0.005 level. It can be interpreted that the approach which was applied to develop the students' writing achievements effective to be taught in both groups of students' **motivation level** or in other words, it can be interpreted that the teaching writing using student-team achievement division (STAD) does not have a significant difference to the students who are in high and middle motivation.

Fourth, the t-test analysis of the students' writing achievements who are in high motivation taught using student-team achievement division (STAD) and conventional approach. From the statistic calculation using **independent sample** test was found the p-output 0.137. It means that the p-output was higher than the mean significant difference at the 0.005 level. It can be interpreted that the approach which was applied to develop the students' writing achievements effective to be taught in both groups of students'

motivation level or in other words, it can be interpreted that the teaching writing using student-team achievement division (STAD) does not have a significant difference to the students who are in high and middle motivation.

Fifth, the t-test analysis of the students' writing achievements who are in high motivation taught using student-team achievement division (STAD) approach and low motivation taught using conventional approach. From the statistic calculation using **independent sample** test was found the p-output 0.004. It means that the p-output was lower than the mean significant difference at the 0.005 level. It was interpreted that the teaching of writing using student-team achievement division (STAD) approach is effectively applied in one of the groups. Or it can be interpreted that there was a significant difference between the teachings of writing using student-team achievement division (STAD) and conventional approach.

Sixth, the t-test analysis of the students' writing achievements who are in high motivation taught using student-team achievement division (STAD) approach and middle motivation taught using conventional approach. From the statistic calculation using **independent sample** test was found the p-output 0.320. It means that the p-output was higher than the mean significant difference at the 0.005 level. It can be interpreted that the approach which was applied to develop the students' writing achievements effective to be taught in a certain group. It is interpreted that a significant difference was found between teaching writing using student-team achievement division (STAD) to the students who are in high motivation and those who are in middle motivation taught using conventional approach.

This finding was relevant to the research done by Sugiantoro (2009) that student-team achievement division

(STAD) is effective to the improvement of students' listening and reading achievement in all level achievers; high, medium and low. In line with that Lin (1998) found that STAD was more effective in raising the students' English academic achievement, motivational beliefs and learning strategies than the traditional teaching method, and another study conducted by Moryadee (2001), said the students who studied through STAD have a higher English Learning Achievement after the treatment and a higher self-efficacy than those students who studied through conventional method.

Statistically, there is strong evidence that the students' writing achievement from pretest and posttest in both group increased as explained in the findings. However, the increases of writing achievement mean score in the experimental group students are found more significant than the control group students. The increases of writing achievement in the experimental group are assumed because the students were exposed regularly to read and write descriptive text as much as possible, which led them to the improvement of their writing achievement. It can be inferred that STAD method as an alternative methods that scientifically had given a significant contribution in increasing students writing achievement.

In addition, most participants with all levels of motivation in writing and writing achievement had more opportunities to practice their writing abilities in their group through STAD method since this method should be provided by enough material for teaching learning activities. The students became autonomous in their classroom in which they must made decisions, take actions, and manage conflicts to complete group task, and the teacher served as a

consultant and a facilitator in their group learning process.

Furthermore, STAD method is proven not only can increase students' achievement for high achievers and high motivation students but also medium and low achievers. This can be seen from the distribution of pretest and posttest in writing achievement in which low achievers and low motivation students can increase their writing achievement. The writer assumes that low-medium achiever and low-middle motivation students could get good score because they were inspired, and supported by their advance group mates, who wanted their group get good score in writing. Then, high achiever and high motivation students got more chances to apply what they have already known by tutoring their peers, and eventually their horizon was broaden through discussion with other team members.

The first meeting when she taught in the experimental group, the writer got some problems. First, the low achievers were confused about what they were supposed to do, therefore they only waited and relied on their task on high achievers. The second problem was the students' lack of cooperation with another. The high achievers still individualist in group, they just did the task by themselves and did not tutoring their peers. The last problem, some of the students complained to her that they wanted her to change the member. The reasons were they felt difficult to mingle with their members in understanding the material since they were grouped with different friends and different level of achievement and motivation.

Conclusions

Based on the results of data analysis and interpretations, seven conclusions are presented. First, there is any significant difference in average score in writing skill between the students who are taught using

student-team achievement division (STAD) and conventional approach, students made a progress in writing achievement due to the application of the student-team achievement division (STAD) during the process of teaching and learning activities. Second, students who are taught using student-team achievement division (STAD) for greater score in writing achievement than students who are taught using conventional approach. Third, there is any significant difference in average score in writing skill between students' who are in high and middle motivation after being taught descriptive text using student-team achievement division (STAD). Fourth, there is a significant difference in average score in writing skill between students' who are in high motivation after being taught descriptive text using student-team achievement division (STAD) and conventional approach. Fifth, there is a significant difference in average score in writing skill between students who are in high and low motivation after being taught descriptive text using student-team achievement division (STAD) and conventional approach. Sixth, there is a significant difference in average score in writing skill between students who are in high and middle motivation after being taught descriptive text using student-team achievement division (STAD) and conventional approach.

Suggestions

The findings of this study encouraged the writer to suggest to the teachers of English to apply many kinds of teaching strategies in helping the students learn English, especially to develop the students' writing skill. Through this research, it can be an alternative teaching approach since it has shown that the teaching of writing skill

using STAD can develop the students' writing skill achievement.

In teaching and learning process in the classroom, teacher's creativities in applying various teaching strategies are really required to avoid the students' ignorance in learning process since the success of teaching and learning processes involves many aspects. Those aspects are teacher's teaching strategies, students' active participation, interesting learning materials and many other factors.

REFERENCES

- Arikunto, S. (2000). *Metodologi pendidikan*. Jakarta: PT. Rineka Cipta.
- Astuti, M. E. (2010). *English zone for senior high school students year X*. Jakarta: Penerbit Erlangga.
- Best, J.W., & Kahn, J.V. (1993). *Research in education*. Boston, MA: Allyn and Bacon.
- Bunyamin. (2009). *The effectiveness of using Dicstom technique to teach descriptive writing to the eleventh grade students of MAN 2 Palembang* (Unpublished master's thesis). University of Sriwijaya, Palembang, Indonesia)
- Byrd, A. H. (2009). Learning to learn cooperatively. *English Teaching Forum*, 47(4), 18-21, 28.
- Cimcoz, Y. (1999). Teaching ESL/EFL students to write better. *TESL Journal*. V(10). Retrieved from <http://iteslj.org/>
- Creswell, J. W. (2005). *Educational research: Planning, conducting and*

- evaluating quantitative and qualitative research*. NJ: Pearson Education, Inc.
- Daly, L & Sharko, S. (2010). *Motivating students to write through the use of children's literature*. Chicago, IL: Saint Xavier University.
- Davis, B, G. (1999). Cooperative learning: Students working in small groups. *Stanford University Newsletter on Teaching Bulletin*. 10(2).
- Davies, S. J. (1998). Creative writing. *English Teaching Forum*. 36(4), 16-23.
- Felder, R. M. & Brent, R. (2001). Effective strategies for cooperative learning. *Journal Cooperation & Collaboration in College Teaching*, 10(2), 69-75.
- Fraenkel, J.R & Wallen, N.E. (2001). *Educational research: A guide to the process*. New York, NY: McGraw-Hill, Inc.
- Genç, Gulden. & Aydin, S. (2010). Students' motivation towards computer use in EFL learning. *IETC*. Istanbul, Turkey.
- Guo Yan. (2005). A process genre model for teaching writing. *English Teaching Forum*. 43(3), 18-26.
- Heaton, J. B. (1988). *Writing English language tests*. New York, NY: Longman Inc
- Huang, K. (2007). *Applying Cooperative Learning in the EFL Elementary Classroom: Development and effects – The example of the sixth graders of Ping Tung County* (Master's thesis, University of Ping Tung). Retrieved from http://140.127.82.162/ETD-db/ETD-search/view_etd?URN=etd-1115107-190340-94
- Komiyama, R. (2009). CAR: A means for motivating students to read. *English Teaching Forum* No. 3, 32-4, 36-37. Retrieved from <http://almajdschool.net>
- Kozar, O. (2010). Towards better group work: Seeing the difference between cooperation and collaborative. *English Teaching Forum*. 48(2), 16-23.
- Lan, YJ., Sung, YT. & Chang, KE. (2006). What makes collaborative early EFL reading effective? A mobile dynamic peer-assisted learning system. Retrieved from http://www.iadis.net/dl/final_upload.pdf
- Lee, Icy. (2002). Helping students develop coherence in writing. *English Teaching Forum*. 40(3), 32-39.
- Liang, T. (2002). *Implementing Cooperative Learning in EFL teaching: Process and effects*. (Doctor's thesis, University of Taiwan Normal). Retrieved from http://asian-efl-journal.com/Thesis_Liang_Tsailing.pdf
- Maihoff, S. (1995). Cooperative learning is active learning. *Instructional Techniques*. 65(4), 265-267.
- McMillan, H. J & Schumachers, S. (2010). *Research in education, evidence-based inquiry* (7th ed.). NJ: Pearson.
- Norman, G. D. (2005). *Using STAD in an EFL elementary school classroom in*

- South Korea: Effects on student achievement, motivation and attitudes toward cooperative learning.* (Master thesis, University of Toronto). Retrieved from http://www.asian-efl-journal.com/Norman_thesis_2006.pdf
- Panitz, Theodore. (1999). Motivational benefits of cooperative learning. *New Directions for Teaching and Learning*, Vol 1999, Issue 78, 59-67.
- Renaud, S., Tannenbaum, E., & Stantial, P. (2007). Student-centered teaching in large classes with limited resources. *English Teaching Forum*. 45(3), 12-17, 34.
- Richards J, C. & Rodgers, T. S. (2001). *Approaches and methods in language teaching* (2nd ed.). NY. Cambridge Language Teaching Library.
- Slavin, R. E. (1985), *Cooperative learning: Applying contact theory in desegregated schools.* *Journal of Social Issues*, 41, 45-62. (Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1540-4560.1985.tb01128.x/abstract>)
- Slavin, R. E. (1995). Research on cooperative learning and achievement: What we know, what we need to know. Retrieved from [http://socialfamily535.pbworks.com/f/slavin1996\[1\].pdf](http://socialfamily535.pbworks.com/f/slavin1996[1].pdf)
- Sugiantoro, B. (2008). *Increasing SMKN 1 Muara Enim students' listening and reading achievement by using STAD method* (Unpublished master's thesis). University of Sriwijaya, Palembang, Indonesia)
- Trianto (2009). *Mendesain model pembelajaran inovatif-progresif: Konsep, landasan dan implementasinya pada Kurikulum Tingkat Satuan Pendidikan (KTSP)*. Jakarta: Kencana.