

Effectiveness of Student Team Achievement Division Cooperative Learning and Direct Instruction in Teaching Reading Comprehension to Students with Different Learning Motivation

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Abstract

This study aimed at investigating the effects of Student Team Achievement Division Cooperative Learning (STAD CL) and Direct Instruction (DI) on improving students' reading comprehension with high or low learning motivation at eleventh grade students of Senior High School 1 Kudus and finding solutions and strategies to make teachers have the preference to use of STAD CL and DI in delivering the subject matter while teaching. This study was experimental research named two-way (two-by-two) factorial design. The population of this study was the eleventh year students of State Islamic Senior High School 1 Kudus in the Academic Year 2015/2016. There were five classes from XI-A to XI-E. Each class had 35 students, therefore, the total population was 175 students. Meanwhile the samples of this study were eighty students from four classes selected based on the historical factors and pre-existing ability. 80 students were chosen to be a sample, 40 as STAD CL group and 40 as DI group. Both groups were given the pre-test to measure students' reading skill and after several times of treatments, both groups were given the post-test. The results of this study showed that STAD CL as teaching strategy for teaching reading to those who had high and low learning motivation compared to DI was more effective than DI because most students stated that STAD CL contributed to increase the reading performance in the classroom. Further study may also be conducted to determine whether teachers' use of STAD CL or DI appears to reduce student anxiety and stress in the classroom to improve students' reading or even other skills, retention, and student-teacher relationships.

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INTRODUCTION

Reading is one of the basic communicative skills, but it has a very complex process of learning. Reading can be said as an interactive process because reading needs a reader to guess, predict, check, and ask questions about what the text is about. Moreover, reading is a complex process, which involves not only the readers ability to read the text but also their ability to comprehend it . Because of this reason, many teachers of English at junior high and senior high school find difficulties in teaching reading. Most of the Indonesians students do not really understand what they have read, even though they have been learning reading.

On the other hand, reading also becomes a very important skill for both our life in general and language learning in particular. For our life, it enables us to access written worlds of ideas (Hood et al. 1996: 33), feelings as well as knowledge of the ages and vision of the future (Alderson, 2000: x). It also facilitates us to gain access to science in various fields of study and to sense others' feeling, attitude or behavior and to know what happened in the past or what may happen in the future. For language learning, it can improve other general language skills and help to think in the target language, enlarge vocabulary and improve writing skill (Mikulecky and Jeffries, 1996: 1).

The importance of reading can be seen from the fact that the main part of the national examination in senior high schools was to do with reading skills. It has been stated by one of the teachers of Senior High School 1 Kudus that various questions on the English national exam are intended to assess students' reading comprehension. One of reasons students got bad mark of English examination is because they are still lack of reading skill. Therefore they could not finish answering reading questions.

Teaching reading comprehension levels with some strategies or skills is quite demanding for English teachers. Although comprehension can be taught directly (Fielding and Pearson, 1994), its teaching requires teachers to be well-

informed, creative, and innovative (Depdiknas, 2007) about theories, approaches, methods, models, media. On the top of that, the teachers are required to have opportunities to experiment the various approaches, models or methods (Arends and Kilcher, 2010).

Two of the models to teach reading are Student Teams-Achievement Division as a cooperative learning (STAD CL) model (Slavin, 1989; 1995) and Direct Instruction (DI) as a competitive model (Adams & Engelmann, 1996). Cooperative learning (CL) is a teaching technique and philosophy employing small groups (Killen, 1998: 82) so that learners work together to maximize their own and their peer's learning and receive rewards based on their group's performance (Richards and Rodgers, 2001: 192). Competitive model is a teaching model wherein students individually compete to be rewarded as the winner of the competition (Lie, 2004: 23-24).

Another issue is that motivation is one of the most important factors that will influence students' English achievements or performance. It has a close relationship with students' success or failure in English teaching in college. Therefore, teachers must pay more attention to this aspect. Gardner (1985: 2) emphasized that the motivation constructed the primary factor to influence students on English learning. He asserted that motivation for language learning can not only include goal orientation but the combination of effort, desire to achieve the goal of learning the language and favorable attitudes toward learning the language.

Therefore, this study attempts to investigate the effects of STAD CL and DI on improving students' reading comprehension with high or low learning motivation at eleventh grade students of Senior High School 1 Kudus. Further, the study also attempts to find solutions and strategies to make teachers have a formed opinion of the use of STAD CL and DI in delivering the subject matter while teaching to make more it effective.

METHODS

This study employed a quantitative research design. The design was quantitative research, which was to explain phenomena by collecting numerical data analyzed using mathematically based methods in particular statistics (Aliaga and Gunderson: 2002 in Muijs). This study used the factorial design since it indicates relationships between variables. It may be that while one variable increases, the other one decreases, or an increase in one gives rise to the other variable.

The population of this study was the eleventh year students of Senior High School 1 Kudus in the Academic Year 2015/2016. There were five classes from XI-A to XI-E. Each class had 35 students, so the total population were 175 students. The samples of this study were 80 students in the way that the groups which was taken for the research was class X1- A to X1- C consisting of 40 students as STAD CL group and class X1-C to X1-E consisting of 40 students as DI. Both groups were selected based on the historical factors and pre-existing ability. In terms of historical factors, the students in both groups (STAD CL and DI group) had relatively the same language learning experience. Previously, they had been studying English for more than 1.5 year with the same teacher and the same materials. In such a time span and experience, they were assumed to have adequate knowledge background which is beneficial for their reading. This condition helped the researcher assumed that the participants had similar prior knowledge. Furthermore, they were also chosen based on the homogeneity of pre-existing reading comprehension ability. Among the two groups joining pretest, two groups who were statistically homogenous, there were no significant difference on their pretest scores. In other words, the two groups had approximately similar pre-existing reading comprehension ability.

There were three variables included in this study including (1) dependent variable in the way that the dependent variable (Y) in this study is the students' reading comprehension skill, (2)

independent variable in the way that the independent variable (X) in this study is STAD CL and DI as teaching methods in teaching reading, and (3) moderator variable in the way that a moderator variable (M) in this study is high and low learning motivation of students.

ANATES and SPSS software were utilized to analyze the result of the pre test and the posttest in the way that ANATES could automatically analyze the reliability, the level of difficulty, discrimination index and distracters' quality of the items. It helped researcher to identify the quality of the test items quickly and appropriately. The second one, SPSS could easily analyze quantitative data just by following the procedures.

The procedures of analyzing the data from the tests are as follows.

Data Entry and the Analysis via ANATES software

Firstly, the coded names of participants, the answers and the key answers were entered into ANATES. Then, the correct answers were scored, one correct answer got one score. The sum of correct answers was divided by the number of the items to have percentage point. Finally, the reliability, the level of difficulty, discrimination index and distracters' quality of the items were analyzed automatically, by following the procedures

ANOVA Test via SPSS

The total scores obtained from ANATES were then statistically analyzed through the SPSS software. Before having ANOVA, the data were tested using normality and homogeneity. The normality was used to check whether the distribution of score each group in pre-test and posttest was normal or not. If the distribution score was normal, it can be said that the distribution of the test was valid. The testing of normality was carried by using Shapiro-Wilk and Kolmogorov-Smirnov test. Meanwhile the homogeneity is to know whether both of groups were from homogeneous population or not. The test was needed to decide whether the sample was from the same population. To do the homogeneous variants test of the population, Lavene Statistic Test was employed. The last

step was to analyze the data using ANOVA. This analysis was intended to see which teaching program STAD CL or DI more effective in improving the students' comprehension in general.

Hypotheses Testing

To test the hypotheses, two-way analysis of variance with F-test at the 5% (0.05) level of significance was used. One-way ANOVA requires two basic things including normal distribution score for each cell and homogeneity of the score variation (Irianto, 1989). It was to answer the problem that claimed whether there is any effect of the use of STAD CL and DI model development of students' reading skill to those who have high and low learning motivation.

RESULTS AND DISCUSSIONS

Data of pre-test showed the achievement of test of both STAD CL group and DI group before the treatment. The objective is to see the achievement of students before the treatment. Below are the summary of the score for both group in pre test.

Table 1. (Pre test Achievement)

	STAD CL	DI
Mean	59.8	59.6
Highest Score	90	86
Lowest Score	26	28

Based on the results of the calculation, it can be concluded that the average class of pre test was 59.8 for STAD CL and 59.6 for DI. The average still did not reach the target of that has been set is 65. Therefore it required new model of learning and teaching, in order to further improve the ability of students to understand the material taught. The students' ability in reading comprehension pre-test was quite bad in the way that they students faced many difficulties in catching and understading the texts and questions. Most students said that they became confused to choose the tricky multiple choice option therefore they were not sure about what they choose. Moreover, their vocabulary was

limited therefore they had diffitulties in understanding the meaning of the text clearly.

Table 2. (Post test Achievement)

	Pre Test		Post Test		Percentage
	STAD CL	DI	STAD CL	DI	
Mean	9.8	9.6	7.8	3.9	87.3
Highest Score	90	86	94	90	
Lowest Score	26	28	44	32	

According to the table, it can be seen that the achievement of students in post test has increased in the way that mean of STAD CL group was 67.8 in post test which increased 8% from pre test meanwhile mean of DI group was 63.9 in post test which increased 7.3% from pre-test. Thus the progress was slightly better in STAD CL group. Furthermore, the highest score of STAD CL also increased from 90 to 94 and the lowest from 26 to 44. And then the highest score of DI increased from 86 to 90 and the lowest from 28 to 32. Therefore, it can be concluded that that the implementation of STAD CL to improve reading comprehension has reached indicators of success determined by mean, highest and lowest score compared to DI. On the other hand, motivation also supports the achievement of both group. The data is presented below.

Table 3. (motivation achievement)

Motivation	Pre Test		Post Test	
	STAD CL	DI	STAD CL	DI
High	63.8	1.1	72.3	8.5
Low	55.8	8.1	68.5	9.3

It can be seen that mean of highly motivated students of STAD CL increased in post test (72.3) and also mean of highly motivated students of DI increased in post test (68.5) meaning that students who have high

motivation really support the last achievement using STAD CL or DI.

The data of pre and post tests showed that the average achievement in pre test was still very low because based on the data obtained showed that the average of score was still below the target and this indicates that the students still had difficulties in comprehending reading texts. Meanwhile, for the post test, the average achievement increase indicates that the treatments of both group were successful but the use of STAD CL showed better improvement than DI.

In STAD CL group, the process of teaching learning activity was running well in the way that students performed the presentation in their small group and it was quite effective to make them focus and pay attention to the lesson. Then the use of STAD CL model in teaching reading was good and appropriate either motivating them to be active in class presentation or encouraging them to be confidence in the class. Moreover, students work together in achieving the groups' goals by presenting their own material in the group, help and motivate each other to succeed, share passion, play an active role as a peer tutor to further enhance the success of the group, and do interaction among students with increasing their ability to argue. In addition, their reading competence improved naturally with the various ways of learning.

For DI group, the teaching learning process was not as good as STAD CL group in the way that they did not as active as STAD CL group; just a few of them asked the questions and active in the class. Then the interaction between the teacher and the students was not really good as STAD CL group in the way that the class run very monotouns. Some of them did not give any question or comment to the others. With regard to the ability in reading, the students' ability was also improved enough after the treatments.

From the two comparisons above, it can be concluded that STAD CL teaching model was effective in teaching reading comprehension. It shows that they became more

active to ask questions, comment, and present the presentation in the classroom. Moreover, the effect of motivation on the reading comprehension showed that the relationship between the students' desire to learn and their performance is strong enough. Regarding their learning motivational intensity, it has positive correlation with reading competence of students. Among the result of score given above, it seems that students' achievement in reading classroom is influenced more by their learning motivation. Thus, the students need to have more motivation to get good grades. On the contrary, some students with low motivation struggle hard in obtaining good achievement. However, their high motivational intensity is not futile. It is their driving force to pass and for a few even to get good grades. Therefore, although the correlation is positive, the student's reading skill could be attributed mainly from learning motivation in learning English.

The result of students' reading competence by STAD CL teaching model with high learning motivation of the eleventh year students of Senior High School 1 Kudus was very high. This means that STAD CL teaching model together with learning motivation supported students to obtain better achievement in reading skill. Meanwhile, the result of students' reading competence by STAD CL with low learning motivation was quite high.

From the hypothesis testing showed that STAD CL teaching has a significant influence the learning achievement of reading comprehension that is proven by $F \text{ value} > F \text{ table}$, which means that STAD CL teaching model has significant effect on the achievement of reading comprehension. Moreover, the average score of both groups is statistically different in the progress in the way that mean of STAD CL group achievement is higher than mean of DI. Therefore, the use of STAD CL teaching model English reading classroom in improving their reading skill is effective rather than conventional method (DI).

Those result above later on indicates that five procedures of STAD CL used by the teacher is quite efficient and interesting. For example, in

the class presentation in the way that students should perform one by one, students pay attention more to the class rather than in DI model. Based on the results of the achievement, despite the students in the school are very heterogeneous in their levels of motivation (high or low), it is found that this technique was a good alternative in teaching reading with mixed level of achievements because they had a good chance of learning from each other especially in developing their vocabulary.

Furthermore, the students did not only get a chance of gaining explanation from the teacher, but also from their friends in their own group. This indicated that this technique promoted student centered learning (STAD CL) rather than teacher centered learning (DI), in which the interactions were not only between teacher-student, but also between student-student.

Meanwhile in DI class, the class runs to be monotonous in the way that there is very little room to improvise because this method follows a step-by-step procedure. The procedure usually starts with an introduction, followed by the rationale for the instruction, then by the instruction itself. The procedure ends with a summary and then followed by an assessment. Direct teaching, if utilized by unprepared teachers, can be disastrous. For direct teaching or instruction to be effective, the teacher must have a mastery of the subject matter, must prepare a well-organized content, and must have excellent communication skills. Without these traits, a teacher could not effectively carry out direct teaching or direct instruction, nor could they develop higher order thinking skills in the students.

Other side, high learning motivation also has significant effect on the development of student's reading skill. This was proven by third hypothesis that $F \text{ value} > F \text{ table}$ meaning that high learning motivation has significant effect on the achievement of reading comprehension and the result of achievement of both group who have high learning motivation also get higher score than low learning motivation however, their motivation does not play totally in their

achievement. It means that the students who high motivation will not always get good score in their reading score. Thus, the grades obtained by the students are more likely related to their background knowledge and aptitude rather than only their motivation.

To conclude, STAD CL teaching model has better significant improvement for the students' reading skill than DI teaching model to those who have high and low learning motivation. It was proven by different range of pre- and post-test of both groups. Some students reported that STAD CL strategy in the classroom situation affected their learning positively to those who have high low motivation rather than DI.

CONCLUSION

Based on the findings of this study, it can be concluded that the result of improving students' reading competence by STAD CL teaching model was very high. It means that, STAD CL together with different learning motivation supported students to have better achievement rather than DI in reading comprehension.

STAD CL as teaching model for teaching reading is more effective than DI model because mostly students stated that STAD CL really improves their reading performance in the classroom. It means that some students preferred choosing STAD CL as part of their English reading classroom and quite a high proportion of all students felt that its model even encouraged them to improve their performance of their reading.

Furthermore, STAD CL in teaching reading makes the students increase their motivation, reduce their passive in the classroom, stimulate their thoughts and interest and foster positive relationship between them and the teachers and effective learning. High learning motivation also has significant effect on the development of students reading skill however; their motivation does not play totally in their class achievement. However, their motivation does not play totally in their class

achievement, which means that the students who has high motivation will not always get good score.

There are positive interaction between STAD CL and high or low motivation of students on the improvement of reading skill in the way that some students reported that STAD CL together with learning motivation reduces barriers between them and their teachers. Meanwhile the interaction between DI and learning motivation are not as positive as STAD CL in the way that some students are not in a good progress in their reading skill.

Moreover, STAD CL is one of the alternative teaching method in teaching reading comprehension. The use of STAD CL helps he teacher to deliver the material and it also helps the students to be active in sharing their idea in teaching and learning process. Therefore, it is suggested that: (a) STAD CL is an appropriate teaching model in teaching reading comprehension for senior high students. Thus, teachers should use it as one of the media in teaching English especially in the competence of reading, (b) students should try to practice cooperative learning on their own in the classroom in the way that the teacher should let the students try to practice small group discussion in understanding the text with the teacher or with their peers, (c) the result of this research can hopefully be useful for the reader in the way that the reader will have more information about the use of STAD CL or DI in teaching reading, speaking, and listening.

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