

The Use of STAD to Improve Bahasa Indonesia Achievement in Junior High School Students

Elisabet Widyaning Hapsari
Faculty of Psychology
Unika Widya Mandala, Surabaya

Murtini
Faculty of Psychology
Universitas Gadjah Mada, Yogyakarta

Indonesian language (Bahasa) lesson is one of the lessons which was tested each year in the national exams. The average of Indonesian's grade is 65, which is below the kriteria kelengkapan minimal (KKM = minimal completeness criteria) value (70). Values obtained were also influenced by students' learning methods provided by the teacher. The purpose of this study is to test the effectiveness of STAD methods to improve the performance of Bahasa lesson for junior high school children. Participants of this study were 72 students in junior high school, who were divided into an experimental group (36 students) who receive the STAD method, and 36 students as the control who receive the traditional learning. This study use an experimental pre- and posttest design with switching replications. Results ($p < .05$) reveal that STAD could increase Bahasa (Indonesian language) achievement in junior high school.

Keywords: STAD, learning Bahasa, Indonesian language achievement

Bahasa Indonesia adalah salah satu yang diujikan dalam ujian nasional. Rata-rata nilai yang diperoleh (65) berada di bawah nilai kriteria kelengkapan minimal KKM (70). Nilai yang diperoleh juga dipengaruhi metode belajar siswa yang diperoleh dari guru. Studi ini menguji keefektifan metode pembelajaran kooperatif STAD (*Student Teams-Achievement Divisions*) untuk memperbaiki nilai Bahasa Indonesia di sekolah menengah pertama pada ujian nasional. Sampel ($N=72$) adalah siswa dari sekolah percontohan yang berstandar nasional, yang memiliki nilai rata-rata di bawah KKM untuk Bahasa Indonesia. Sampel dibagi dua: 36 siswa sebagai kelompok eksperimen dan menerima pembelajaran kooperatif STAD, dan 36 siswa lainnya sebagai kelompok kontrol yang memakai pembelajaran tradisional. Studi ini menggunakan desain eksperimen dengan pra- dan pasca-uji dengan replikasi bergantian. Hasil menunjukkan ($p < .05$) bahwa pembelajaran kooperatif STAD meningkatkan nilai Bahasa Indonesia pada siswa sekolah menengah pertama

Kata kunci: pembelajaran kooperatif STAD, belajar Bahasa Indonesia, prestasi Bahasa Indonesia

Education is very important for every human being. The result of the 2010 National Exam stated that the number of Daerah Istimewa Yogyakarta's students who did not pass increased by 15.44% when it was compared to 2009's result which was 6.54% (Hasil Ujian Negara, 2010). According Amarullah (2010), there was a deterioration in the National Exam scores.

Data obtained by the authors stated that Bahasa's Minimal Completeness Criteria (KKM) of Junior High A in 2008/2009 was 70, however the grade seven students' reports of semester one and two was below the KKM; with the average score of 65. Bahasa's report score for

semester 1 and 2 in of Junior High B 2008/2009 was also below the KKM (= 70); with the average score of 64.5. According to students, the low achievement of Bahasa score was caused by their low motivation to learn Bahasa. Preliminary study which was conducted at August 8, 2009 at the Junior High School A and B in Yogyakarta about innovative teaching methods found that Junior High students wanted their teachers to make innovations in teaching.

Based on of what had been mentioned, hence it required a creative innovation. Harsono (2007) also added that the creative innovation was if we change the old teaching way: teacher-centered into a student-centered learning environment. The teaching way was expected to be able to encourage students to get involved actively in building the knowledge, attitudes

Correspondence concerning this article should be addressed to Elisabeth Widyaning Hapsari, Faculty of Psychology, UNIKA Widya Mandala . Jl. Dinoyo 42-44, Surabaya 60265. E-mail: elisabetwidyaninghapsari@gmail.com

and behaviors (Afiatin, 2007). Afiatin also added that in the student-centered learning method, teachers were expected to have a role as a facilitator who would facilitate students in learning, and students themselves must actively study from a variety of learning resources. Adiwinata (1995) who conducted a study on the effectiveness of teaching English at a private secondary school in Palembang, stated that the success of students in learning English was also influenced by the teachers' methods and skills in teaching.

Piaget as cited in Slavin (2006) stated that a child's cognitive structures evolved through contributions from the environment. Information received by a child sometimes did not correspond with the child's cognitive process and it is called *disequilibrium* (Santrock, 2008). This condition caused the child to try to reach equilibrium through the process of assimilation and accommodation. Piaget also added that environment supports children to develop their thinking schemes (Eggen & Kauchak, 2010). Vygotsky (cited in Santrock, 2007) also concluded that children's cognitive development could be done through social interaction. Vygotsky emphasized the importance of adults' role or a cleverer friend to explain an information or material so that the child could understand a material and achieve a higher-level speculation. This concept is better known as the Zone of Proximal Development (ZPD). Vygotsky defines the ZPD as the range between the level of "actual development" (that is the ability to solve problems independently) to the level of "development potential" (that is the ability to solve problems with another person's assistance) (Santrock, 2007). The concept emphasized that when students find difficulties in understanding a material, they will be able to comprehend and understand more about it with the assistance from others (Santrock). This is in accordance with the theory of scaffolding where the assistance from others help 'reconstructing' students' thinking about a new information which previously could not be understood by themselves (Eggen & Kauchak, 2010). This theory was also in accordance with which emphasized cooperation with peers in a group (Slavin, 2006).

There are so many student-centered learning methods which could be applied to students in understanding a lesson and one of them is and one of them is Cooperative Learning method. It can be used by teachers during the teaching-learning process (Afiatin, 2007; Slavin, 2008). This method could help teachers to achieve the learning goals (Akinbola in Kolawole, 2008) and is a very effective method of learning because the students study in small groups, help each other in learning the subjects, and express opinions, so that students are motivated to learn well and in the end it could affect improvement in

learning achievement (Croce, 2007; Iksan & Zakaria, 2007; Slavin, 2008; Kao, Lin, Sun, 2008; Kolawole, 2008). Through Cooperative Learning, students were expected to work together in understanding and solving the problems given by the teacher and this were not found in the traditional learning methods (Iksan & Zakaria, 2007). It was also expected that through cooperative learning, the teachers could manage the classroom more effectively so that the good quality of education could be achieved (Chiu, 2004; Iksan & Zakaria; Kolawole, 2008).

Slavin (2008) explained there were various methods that could be used in , which are: Student Teams-Achievement Divisions (STAD), Team-Assisted individualization (TAI), Game Team Tournament (TGT), Jigsaw and Cooperative Integrated Reading and Composition (CIRC). This research focused on STAD which had simple procedures so it would easy to be applied by novice teachers who wanted to use the STAD Cooperative Learning was one method of learning which used the constructivist approach. The important thing in the constructivist approach was a learning process which not only involved the transfer of information from teacher to student, but each student had an active role as individual to construct their understanding about the information and then integrated that information using the background knowledge they had (Atherton, 2009; Santrock, 2008; Slavin, 2006). Through , students actively developed the knowledge given with guidance from teachers or others who were smarter (Santrock, 2008; Slavin, 2006).

Achievement and competition in learning were very important things to be done (Santrock, 2008). Interaction with peers supervised by teacher during lessons was expected to improve student's achievement. Students were expected to know they can learn things through their peers' assistances by learning in a group (Berns, 2007). Vygotsky in Slavin (2006) concluded that at this stage, students' cognitive develop through interaction with the environment and each other. Their learning ability could improve well when they were supported by teacher's capabilities as well as by their peers (Slavin, 2006). Berns (2007) also added that learning in groups could help students gaining experiences in Cooperative Learning

Cooperative Learning provides positive feedbacks from the thinking process, problem solving and interaction in the group. Students learn how to organize their thoughts, explain and solve problems related to complex tasks (Astiani, Salimi, Ayubi and Mohebbi, 2007). High-achieving students were expected to help fellow students who achieved lower to better understand a subject using the to improve the student's academic achievement. In accordance with the research done by

the Suyanto (1999) regarding the effect of on students' achievement in Mathematics in an elementary school in Yogyakarta, it is found that the was very effective in improving students' achievement in Maths.

STAD (Student Teams Achievement Division)

The authors tend to use STAD technique as it was more flexible and it is easier to remember, to understand and to use. It also had a simple procedure and it could be modified to any conditions (Tarim & Akdeniz, 2007). Plus STAD was the best model for novice teachers who want to apply in their classroom (Slavin, 2008). The authors chose to use STAD because its learning method could be tailored according to the circumstances in Indonesia teachers' teaching and learning activities.

Student Teams-Achievement Divisions (STAD) was one of the simplest Cooperative Learning technique (Slavin, 2008). STAD Cooperative Learning could be implemented starting from primary education to tertiary education and is applicable for all subjects (Kolawole, 2008; Tarim & Akdeniz, 2007). Several studies using STAD stated that STAD could improve some aspects of learning achievement, independence and also the ability to adapt to others (Iksan & Zakaria, 2007; Kolawole, 2008; Tarim & Akdeniz, 2007). The main purpose of the STAD Cooperative Learning was to motivate students to support each other and help each other in mastering the material taught by the teachers (Slavin, 2008).

The characteristics of STAD Cooperative Learning (Slavin, 2008 & Widyantini, 2008) are as follows (Slavin, 2008; Widyantini, 2008):

1. Teachers divide the students into groups of 4-5 people with a variety level of abilities, gender, and cultural backgrounds.
2. Teachers distribute the learning materials to students based on the goals of the basic competencies. This step doesn't have to be done in one session, but can be more than one session in accordance with the KTSP.
3. Teacher assigns tasks to the group related to the material given, and the students discuss it, help each other, question each other, make a quiz based on the related materials and discussed the answers of the assignment given. Its main purpose was to ensure that each group can master the concept and material. The group's task should be prepared by the teacher so that the basic competence can be achieved.
4. Teachers facilitate students in summarizing, directing and giving emphasis on learning materials that have been studied.

5. Teachers give awards to groups based on the acquisition value of the increased individual learning outcomes from the initial scores to the next quiz scores.

Before explaining the subject, the teacher should announce that the learning process would be conducted in the form of STAD. The teacher explains how the STAD is implemented and what benefits the students will get. The groups is created heterogeneously by the teacher from low to high achievement students, genders and socioeconomic level. The teacher explains that each group member have a responsibility to understand the material and ensure that their teammates understand the material (Slavin, 2008).

Each individual get one problem which should be done in groups. Each member has a responsibility to complete his or her personal task and help out other members of his or her group by explaining how to solve problems if they face difficulties. Teachers give rewards in the form of praises and applause to the group which successfully got the highest average value. In the implementation of group work, teachers continue to guide and encourage the students to help each other among members in a group (Slavin, 2008).

Based on the data in the field of students' Bahasa achievement in Junior High A and B, reports score obtained show that those students were below the standard Completeness Minimum Criteria (KKM). Teachers were one of the needed parts to help students understand and appreciate the subject. STAD Cooperative Learning itself was the most widely used learning method starting from grade two up to grade eleven in the subjects Mathematics, Language Arts, Social and Science (Slavin, 2008) so that it could be concluded that the STAD Cooperative Learning could be used in grade seven junior high.

STAD was a learning method based on constructivist approach. The focus in the constructivist approach emphasized the importance of cooperation within the group to understand the material (John-Steiner & Mahn, as cited in Santrock, 2007). Constructivist approach also emphasized that teachers helped students to learn actively in a group, to think critically and to socialize with the guidance from the teachers (Santrock, 2008). Blumenfeld, Krajik & Kempler (in Santrock, 2007) also stated that teachers should give students opportunities to learn in group to understand the material.

The students in STAD were divided into groups of 4-5 students who had a variety level of ability, gender and cultural backgrounds (Slavin, 2006; Slavin, 2008). The students in this study had Bahasa grades of term 1 and 2 below the KKM. Variations in the ability level of students in each group were chosen based on students'

overall grades. The variation in each group was conducted so that the lower students could understand a subject through STAD Cooperative Learning because higher-achieving students help lower-achieving students in understanding a subject. Besides helping lower-achieving students in understanding the material, they also indirectly motivated themselves to study harder in understanding the material (Tarim & Akdeniz, 2007). Slowly the friendship interwoven within the group becomes stronger because each of them had individual responsibility in understanding the material so that their group can get some reward from the teacher (Iksan, & Zachariah, 2007; Tarim, & Akdeniz, 2007).

When lower-achieving students in one group were asked by the teacher to work on the problems in front of the class, he/she would do it with confidence (Kolawole, 2008). It was also a form of individual responsibility for himself or herself and for other members in the group (Iksan & Zakaria, 2007). In addition, it was to motivate students to give a good explanation to each other, because the only way for the team to succeed was to make all the team members mastered the information or the skills which were being taught.

STAD Cooperative Learning was conducted in groups and clearly each group had the same goals which proved to be helpful to support one another to understand a subject, to do the work in front of the class when the teacher asked them to, and to achieve the highest score. Stevens and Slavin (1995) stated that in the STAD Cooperative Learning, each team member had an equal chance of success. By mastering the material it was expected that each team members would be able to work on assignments or quizzes individually given by the teacher. With the cooperation among group members who had variety levels of ability in understanding a subject, it was expected that Bahasa achievement of each student would increase.

This study investigated the use of Cooperative Learning, especially STAD, to improve the students' achievement in Bahasa Indonesia. STAD Cooperative Learning was applied by a subject teacher in the junior high school students in Yogyakarta.

During the class, the teacher explained the Bahasa Indonesia materials using STAD Cooperative Learning. The teacher delivered the materials and asked the students questions to discuss in groups. Each student in each group worked together to discuss and to understand the materials given and to solve the problems.

This treatment was based on the assumption that through STAD Cooperative Learning applied by teachers in teaching-learning activities students' achievements of Bahasa Indonesia will improve. STAD Cooperative Learning could enhance students' learning achievement (Iksan & Zakaria, 2007; Kolawole, 2008; Rahaya, as cited in Iksan & Zakaria, 2007; Steven & Slavin, 1995; Tarim & Akdeniz, 2007). Here are linkages of the use of STAD in raising Bahasa achievement on the junior high school students (see Figure 1).

Method

The sampling method was purposive sampling where the selection of subjects were selected based on pre-defined criteria (Azwar, 1998). Criteria subject for the experimental group and control group were students of grade seven which did not have special needs and were not based on gender, those students had average scores below the value of Bahasa Minimal Completeness Criteria (KKM), studying at pilot schools which had a national standard. The research subjects were 72 stu-

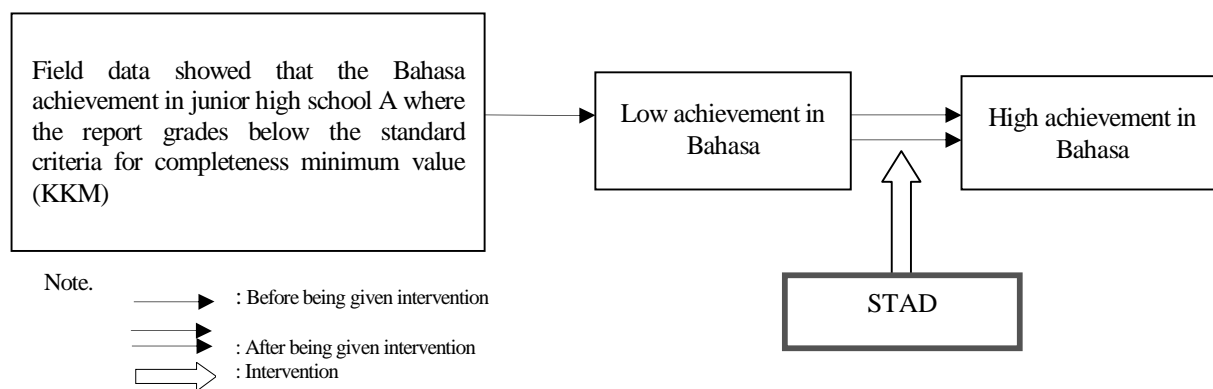


Figure 1. Linkage STAD in increasing Bahasa achievement

dents consisting 36 students for the experimental group and 36 students for the control group.

Data Collection Tool

Tools employed in collecting data in this study were scales of achievement in Bahasa Indonesia and observational sheets. The scale of achievement consists of three different types of question sheets. All three question sheets ask for the same questions but with different scenarios or cases. The trial phase was done using the scale of achievement question sheets in order to find out which items are valid. The result of the trial phase was that only 20 valid items were chosen for this study.

Design of Experiments

The experimental design used was quasi-experimental untreated control group design with dependent pretest and posttest samples using a switching replications design (Shadish, Cook & Campbell, 2002). The samples were divided into two groups which were treated as experimental group and a subject that was not treated as a control group. After the experimental group was given the treatment, then switching was performed in which the control groups were also given treatment (Shadish, Cook & Campbell, 2002).

Intervention

The type of intervention applied was the STAD Cooperative Learning. Qualification of the one who would deliver the intervention was that who has the ability to deliver Bahasa Indonesia lesson and is able to manage the process of teaching-learning in the classroom with a minimum of 10 years teaching experience. These interventions could only be carried out by Bahasa Indonesia teacher. The authors brief the teacher before intervening.

There were several ways to intervene: 1). seventh grade of junior high A as the experimental group, 2). seventh grade of the junior high B as the control group, 3). The teacher giving treatment to the classes and in this case, the teacher applied STAD Cooperative Learning to the experimental group, 4). The control group was given traditional material; 5). after the posttest in the experimental group, there would be switching. The control group changed into experimental group with the provision of treatment in the classroom. The teacher gave STAD Cooperative Learning; 6). the experimental group changed into a control group applied with traditional learning (see Figure 2).

Provision of treatment in junior high school students between the experimental group and control group was applied for two meetings with the calculation of two meetings x two hour lessons @ 40 minutes. The sub-theme of that teaching-learning activity was the main idea of text in a paragraph. Competencies which were expected of this intervention were: (1) Understanding the discourse of writing through reading activities and scanning (2) Determining the main idea, (3) Stringing points of the story into an interesting narrative sequence. The intensity of the meetings with the sub-theme was given as a treatment that was in accordance with the Education Unit Level Curriculum (SBC).

Intervention with STAD at Junior High School A was a material about the main idea of text in a paragraph. The process of implementation were the teacher explaining the definition of the main idea in a paragraph, how to determine the main idea in a paragraph, how to assemble coherent sentences into paragraphs. Then, the teacher divided the class into nine groups that had been determined and then each group was given tasks to be done individually in team. Each group member had an obligation to complete the task individually and made sure that all members in one group understood the material.

Junior High School B as a control group received the process of learning Bahasa in a traditional way from the

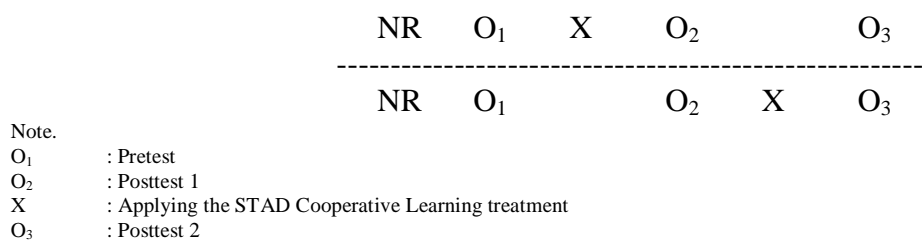


Figure 2. Design experiments "untreated control group design with dependent pretest posttest and samples using switching replications"

Bahasa Indonesia teacher. The Bahasa Indonesia teacher discussed a different topic from the previous one during the intervention. Intervention in the form of learning with STAD Cooperative Learning was given again at the Junior High School B as the experimental group. The meeting also discussed about the main idea in a paragraph of a reading text. The expected competencies in this intervention were: (1) Understanding the discourse of writing through reading activities and reading intensive scan (2) capable of determining the principal story, (3) capable of stringing points of the story into an interesting narrative sequence. The process of implementation was the same as the intervention in Junior High A. Follow-up in Junior High School A as a control group received the teaching-learning process in a traditional way from Bahasa Indonesia teacher.

Results and Discussion

Hypothesis testing in Table 1 shows interaction between time (in pretest, posttest 1, and posttest 2) and the research group (the experimental group and control group) was significant ($F = 4.013, p < .05$). There was a significant difference between pre-test and post-test 2 scores in both groups (experimental-control). The hypothesis in this study could be accepted and this means that the effect of STAD Cooperative Learning could improve the performance of Bahasa Indonesia of Junior High School students.

STAD Cooperative Learning was able to improve students' Junior High School achievement in Bahasa Indonesia. This was supported by previous research which confirmed that the STAD Cooperative Learning could enhance students' learning achievements (Stevens & Slavin, 1995; Iksan & Zakaria, 2007; Tarim & Akdeniz, 2007; Kolawole, 2008). The experimental group post-test 1 scores (after treatment) significantly increased ($p < .05$). Switching was also done when the experimental group became the control group which was not treated. Obtained post-test 2 scores decreased but not significantly ($p > .05$). The insignificance decreased and it was assumed that the learning method STAD given still had an influence on the experimental group.

Teacher in the experimental group of Bahasa Indonesia in the Junior High School A used STAD Cooperative Learning. The teacher explained the subject in the classical way and after that, the teacher gave the task to be done individually in the group. The group consisted of heterogeneous members in terms of abilities, gender, and socio-economic conditions (Slavin, 2008). The students in each group were selected based on overall class grades in

semesters 1 and semester 2. The formation of a heterogeneous group helped the students socialize and expand their social circles (Tarim & Akdeniz, 2007). The groups were formed by the teacher in the classroom. Each group had a responsibility to ensure his or her friends in the group understand the subject.

A Bahasa Indonesia teacher in Junior High School explained directions and motivated his/ her students to be able to work well together with their group members. The teacher complimented the group which was cohesive and orderly. Tarim & Akdeniz, (2007); Veenman & Denessen (2005) explained that the STAD Cooperative Learning made each member of the group responsible for one another (the members help one another to understand the materials). Students who explained and students who received their explanations respond reciprocally. Students who gave explanation would understand more about the materials by teaching his or her friends. Students who received the explanations got instructions from his/her friends on how to process the given materials. Within the group, members helped each other in explaining to one another. There was a sense of need in the groups. Interaction within the group occurred in groups 1, 2, 4, 8 and 9 where the members in the group engaged actively. When there was a member of the group who gave an opinion, the other members listened carefully questions from the discussion. It is hoped that the students would give each other feedback about the material given by teachers through the Cooperative Learning (Webb & Farivar, 1994; Tarim & Akdeniz, 2007).

The control group (Junior High School B) received traditional teaching-learning method on January 26, 2010. The teacher explained the subject with different topics without the use of STAD Cooperative Learning. The teacher explained the subject one way (by lecturing). The teacher explained the materials in front of the class while occasionally writing on the blackboard. Students also listened well. Teachers assigned them individual tasks. They did not work together in doing the tasks. Sometimes it was seen some students talking to one another, but they did not make nuisance in the classroom.

Switching was applied to the control group of Junior High School A which was given traditional teaching-

Table 1
Tests of Hypotheses

Source	Time	Time x Group
JK	372.287	45.750
db	1.721	1.721
RK	216.351	26.587
F	32.658	4.013
Sig.	.000	.026

learning method on January 28, 2010. The teacher explained the material using the lecturing model by sitting in front of the class. It was seen at the time that only the front row group paying attention. The teacher asked one student to read a passage in a textbook, and the reaction was that some students were listening and some others were joking with each other. However, when one student asked about the assigned material, apparently some other students were able to answer it.

Conclusion and Recommendation

The conclusion from this study was that administration of STAD cooperative teaching-learning could be used to improve the Bahasa Indonesia performance of Junior High School students with the following criteria: they must be grade seven students, they must not be of special needs, and they must have average scores below the Bahasa Indonesia *KKM* standard.

Teachers could deliver the subject using the STAD teaching-learning method because the method proved to raise the learning achievement of the students. We only need to pay attention to the criteria that would be the subject of cooperative teaching-learning STAD method.

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