The Effectiveness of Using CIRC and CTL in Teaching and Learning Reading Comprehension

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Abstract

Teaching reading in secondary level is aimed at teaching for comprehension. Comprehension occurs when the reader extracts and integrates various information from the text and combines it with what is already known. Reading comprehension is an intentional, active, interactive process that occurs before, during and after a person reads a particular piece of writing. When a person reads a text, he engages in a complex array of cognitive processes. In the teaching and learning process in SMP Negeri 1 Pecangaan, the teachers still dominate the activities. It emphasis on reading the text and then answers the questions based on the text and discussion to determine the correct answer. This is known as “Baca-Soal-Diskusi” technique (BSD). Concerned about the technique, the researcher thinks that the technique is not good enough. It can be seen that the students’ ability in understanding the text is not satisfactory enough. This research was aimed at describing (1) the difference of effectiveness between CIRC, CTL and conventional techniques and (2) which one is the most effective technique – CIRC, CTL, or conventional – in teaching and learning reading comprehension of grade VIII students of SMPN 1 Pecangaan. This quasi experimental research used pretest posttest nonequivalent group design with teaching techniques as the independent variable and students’ reading comprehension as the dependent variable. The population of the research was the students of grade VIII of SMPN 1 Pecangaan in the academic year 2013/2014 with three classes were randomly chosen as the research sample. The data were gathered through pretest and posttest of students’ reading comprehension which were analyzed using Ancova continued by Scheffe test with the significance level of 0.05. The research results show that (1) There is a significant difference in the reading comprehension of the students taught using CIRC, that of those taught using the CTL, and that of those taught using the conventional technique with $F = 3.68$ and $p = 0.03$ (2) CIRC is the most effective technique among them with the sequence of effectiveness is CIRC followed by CTL and conventional technique.

Keywords: CIRC technique, CTL technique, reading comprehension

INTRODUCTION

Reading is the most important skill in English as stated by Anderson (2000, p. 1), it is an important English skill to be mastered by ESL/EFL students. One’s academic success has a strong correlation with reading. One who had a good achievement in classroom usually like to reading. That is the reason why the reading ability should be built as early as possible. In reading, students are actively responsible for making sense and catch the ideas of the text. Besides, reading can increase knowledge and experience, because the students will get more knowledge with reading, and by reading they also can get more cultural in-
formation, knowledge and automatically enrich their vocabulary.

Another reason is that reading is considered as the most important skills which language learners should obtain as it helps to build vocabulary and leads to lifelong learning and improvement in first and second language skills (Richards and Renandya, 2002, pp. 273). Although reading is a receptive skill, it is placed as a central position among four language skills: listening, speaking, reading, and writing, and it is the most important thing to master. Someone will not get success without comprehending the reading skill, as stated by Grabe cited by Sugirin (2013: 9)”reading skills do not guarantee success for anyone, but success is much harder to come by without being a skilled reader”.

In addition, reading performance influences writing capability. Someone will be good in writing when he/she has a good performance in reading. As said by Johnson (2008, p.7) that reading helps students become better writers. Through reading students have incidental contact with the rules of grammar, students develop a sense for the structure of the language and grammar and increase their vocabulary, and improve the students’ ability to write well. It is also strengthened by Harmer (2007, p. 99) stated that reading also has a positive effect on students’ vocabulary knowledge, on their spelling and on their writing.

Unfortunately, the reading ability of most Indonesian students is still low, seen from the data of PISA (Programme for International Students Assessment) published by OECD (Organization for economic Cooperation and Development) in 2012, showed that Indonesia was in the level of 64 among 65 countries who were assessed by OECD. The mean score of reading performance of Indonesia was in 396 from the OECD average, 496 point. It means that reading ability of Indonesia is still far away from other countries.

On the other hand, the final examination of English (UN) of SMPN 1 Pecangaan in the last five years is stated in the following table.

<table>
<thead>
<tr>
<th>Year</th>
<th>Average of UN score</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Math</td>
</tr>
<tr>
<td>2008/2009</td>
<td>7.13</td>
<td>8.62</td>
</tr>
<tr>
<td>2009/2010</td>
<td>7.29</td>
<td>7.69</td>
</tr>
<tr>
<td>2010/2011</td>
<td>8.19</td>
<td>8.36</td>
</tr>
<tr>
<td>2011/2012</td>
<td>7.95</td>
<td>8.85</td>
</tr>
<tr>
<td>2012/2013</td>
<td>7.85</td>
<td>8.82</td>
</tr>
</tbody>
</table>

The UN result shows that the achievement in English is low than the achievement in other subjects. It is caused by the students’ understanding of English is still poor. In other words, students of SMPN 1 Pecangaan are still low in reading comprehension as most the questions in UN were in the form of reading text.

What’s reading?

There are several definitions about reading from experts. Alderson (2000, p.3) states that reading is a process to interact with print, creating meaning from the text, and understand what it means. It is the process of receiving and interpreting information encoded form via the medium of print (Grabe, 2009, p.14).
In addition, Johnson (2008, pp.3-4) defines reading in four statements. First, reading is the practice of using text to create meaning. If there is no meaning being created, there is no reading taking place. Second, reading is a constantly developing skill. It means that the readers will get better at reading by practicing, and conversely, if the readers do not practice so the skill may deteriorate. Third, reading integrates visual and nonvisual information. During the act of reading, the visual information found on the page combines with the nonvisual information contained in your head to create meaning. The last, reading is the act of linking one idea to another by putting ideas together to create a sensible whole meaning.

Based on some facts and definitions above, reading can be defined as a receptive skills involving in the interaction between text and reader. It is a process of getting information from the writer through text by integrating visual or non-visual information stated in the text.

Teaching reading at secondary level is aimed at teaching for comprehension. Students need comprehension skills that can help them get meaning of the reading materials. To comprehend, a reader must have a wide range of capacities and abilities include cognitive capacities, motivation, and various type of knowledge (Snow, 2002, p. 13).

There are several aspects of reading skills taught in secondary levels. The indicators that learners should be able to achieved are: (1) to find main idea; (2) to find implicit information; (3) to find explicit information; (4) to find word references; and (5) to find meaning of certain word based on the context; (6) to find the moral values (this point can be derived on narrative only). So a student can be considered to have comprehended a text when he is able to cover those six indicators.

Johnson (2008, p.117) states five elements of effective skills instruction in teaching reading comprehension skills. They are: (1) direct instruction and modeling, (2) identification of procedural component, (3) guided practice, (4) regular practice, and (5) application or use in other area in order to ensure transfer. Moreover, Linan (2007, p.120) proposes some concept in teaching reading comprehension, i.e.: (1) ensuring students understand the vocabulary in the passages, (2) pre-teaching key ideas and background, (3) asking students to reflect on the author’s intention, their own experiences, and the meanings derived from the text concepts central to understanding text (4) welcoming questions about words and ideas and what they mean, and (5) using previous knowledge to understand text.

**Reading process**

The process of reading is complex and involves cognitive skills but it is important to realize that there is an effective aspect involved in reading process that is attitude. According to Brown (2007, p. 180) attitudes like all aspect of the development of cognition and affect in human beings, develop early in childhood and are the result of parents and peer’s attitudes, contact to the people who are different in any number of ways and interacting effective factors. Reading attitude is a complex theoretical construct. According to Reeves (2002), there is a considerable agreement among the contemporary researchers that reading attitude is defined by three components: cognitive, affective, and conative (action readiness).

Besides the attitudes, teachers should concern the teaching of reading comprehension to achieve the goals of the teaching and learning processes. It is better for them to go on the principles in teaching reading. Harmer (2007, pp. 101-102) formulates six principles in teaching reading. They are as follows.

First, reading is not a passive skill. Learners do not only catch the surface structure of the texts but also grab the content. Reading is an incredible active occu-
The learners need to draw the content of the text, the writer’s argument, and work which agree with them.

Second, students need to be engaged with what they are reading. When the readers are not interested in the texts or the lesson, they will not get the benefits of the learning. It is easy for them to receive the materials or content stated in the text.

Third, students should be encouraged to respond to the content of a reading text, not just to the language. The use of language in a text is important but the meaning of the language used is also a considerable part which the students’ respond to that message in some ways. It is necessary for giving opportunities for the readers to express feelings about topic.

Fourth, prediction is a major factor in reading. The readers need to find the hit when they start to read the text. They guess the content or topic being discussed in the text by looking at the title. This can be an exciting task for the learners who have imagination.

Fifth, match the task to the topic. Teachers are expected to choose good reading tasks which can be interactive for the learners. The interactive texts may be undermined by asking boring and inappropriate questions.

Sixth, good teachers exploit reading texts to the full. Teachers should integrate the reading texts into more interesting and engaging class sequences, using topic for discussion and further tasks, using the language for the study and later activation.

By applying the six principles, teachers are expected succeed to improve the students’ reading comprehension skill. To be a good reader, students have to understand the purpose of their reading, understand the purpose of the text, monitor their comprehension, and adjust their reading strategies.

However, the difficulties in reading and understanding text which were found are caused by some factors that come from both students and teacher’s side. From the students’ side are the lack of motivation and the limited vocabulary that the students have. From the teacher side, it can be seen that the teacher does not offer an interesting technique in teaching and learning reading comprehension since teaching technique also takes a big role in teaching and learning process.

Based on the researcher’s observation before conducting the research, the researcher found that the teacher in the school commonly used conventional technique, such as BSD (Baca-Soal-Diskusi). In BSD, teacher gave the text to the students. Then the students read the text individually. After that, the students and the teacher discussed the difficult words found in the text. The next step, students answered the questions which were stated in the text. At last, the students and the teacher discussed about the students’ answer. This kind of technique makes the student get bored in reading class.

Concerned about the technique above, the researcher thinks that the technique is not good enough. It can be seen from the students’ ability in understanding the text is not satisfactory enough. Thus, it will be useless when the teacher used inappropriate teaching technique while she/he already used interesting materials.

Hence, the researcher offers techniques which can be used to help the students to comprehend a text, i.e. Cooperative Integrated Reading and Composition (CIRC) and Contextual Teaching Learning (CTL) techniques. By comparing the two techniques to conventional one, it can be revealed how far is the effectiveness of the techniques and which one is assumed to be the most effective one in teaching and learning reading comprehension.

CIRC is one of cooperative learning techniques for teaching reading, writing, and language arts especially for the students in the upper elementary grades.
The method emphasizes group goals and individual accountability.

Slavin (2005, p.203) states that the primary purpose of the CIRC is using co-operative teams to help students learn in reading comprehension broadly. The students in the CIRC also make an explanation of how the problems will be solved and summarize the main elements of the story so it can improve the understanding of the main idea in reading comprehension.

The idea behind this basic cycle of activities is to give students an interactive to do a good job helping their teammate learn. Because the only way the team can succeed is if all team members have individually learnt the material, students must take responsibility for one’s another achievement as well as their own.

CIRC technique is developed to support conventionally used skill based reading groups approach. Reading groups are established in the classroom. When the teacher works with a reading group, couples try to teach each other meaningful reading and writing skills. They help each other in performing basic skill-building activities (such as oral reading, contextual guessing, asking questions, summarizing, writing composition based on the story, and revising-correcting composition). Teams are rewarded for all reading and writing assignments on the basis of the average performance of group members. Thus equal change for achievement, group support for achievement, and the performance, all basic components of cooperative learning ensure realization of personal responsibility (Slavin, 2005, p.200).

The major components of CIRC proposed by Steven et al (1987, pp.438-440) are: 1) Reading Groups, 2) Teams, 3) Basal-related activities consists of partner reading, story structure and story-related writing, words out loud, word meaning, story retelling, and spelling, 4) Partner checking, 5) Test, 6) Direct instruction in reading comprehension, 7) Integrated language arts and writing, and 8) Independent reading.

Steven et al (1987, p. 435) proposes the activities during teaching learning using CIRC technique; they are: 1) Teacher instruction. Initial instruction always comes from the teacher, 2) Team practice. Students work in 4 to 5 member, mixed-ability learning team to master the material presented by the teacher, using work sheet or other practice material, 3) Individual assessment. Students are individually assessed on their learning of the information or skills contained in the lesson, 4) Team recognition. Students’ scores of the individual assessment are summed to form team scores. Teams which meet certain pre-establish criteria may earn certificate or other rewards.

Based on the explanation above, it can be concluded that the applications of CIRC during the lesson conducted on this research are: a) Divide the students in teams, b) Read the text in pairs, c) Answer the questions related to the text, d) Find the meaning of new/difficult words stated in the text, e) Summarizing main ideas of the text and write them in the form of the meaning of new/difficult words, main ideas of the text, and the answer of the questions according to the text and rewrite the text based on the students’ own words, f) Peer assessment on the form quiz, and g) give the reward to the best team.

In other words, it can be said that CIRC can build students’ knowledge, since in the learning activity students are working on their team. They will work in teams to perform the tasks set by the teacher. In teams, they will also help each other; the members of the team who are good in performance can help the team members which are still low. Thus, in CIRC there is a positive contribution from each member of teams. At last, CIRC expectedly is more effective in improving students’ skills in reading comprehension.

Meanwhile, Contextual Teaching Learning (CTL) is a learning technique...
relates the learning material in the context of real-world learning faced by the students everyday in their family, their community, and their environment, so the students are able to make connections between their knowledge with its application in daily life.

Johnson (2002, p.25) defines CTL is an educational process that aims to help student see meaning in the academic subject with the context of their daily lives, that is, with the context of their personal, social, and cultural circumstances. To achieve this aim, the system encompasses the following eight components: making meaningful connections, doing significant work, self-regulated learning, collaborating, critical and creative thinking, nurturing the individual, reaching high standards, and using authentic assessments.

In CTL, students are encouraged to understand the meaning of learning, its benefits and how to achieve it. Students are expected to realize that what they have learnt is useful for life. Students are also encouraged to build their own knowledge through their active involvement in the learning process. The teacher's task is to manage the class to be conducive in the learning process. In this case, the teacher's creativity is required to light up the class activity.

There are six strategies in Contextual Teaching and Learning, they are: (1) emphasize problem solving, (2) recognize the need for teaching and learning to occur in a variety of context such as home, community, and work site, (3) teach students to monitor and direct their own learning so they become self-regulated learners, (4) anchor teaching in students’ diverse life-context, (5) encourage students to learn from each other and together, and (6) employ authentic assessment.

On the other hand, Sears &Hersh cited by Deen (2006, p.15) identified three points as practices of CTL, they are: 1) problem solving, 2) self-regulated learning, and 3) teaching anchored in students’ diverse life context such as home, community, and work site.

There are seven principles of CTL based on Depdiknas (2002, pp.10-19), i.e.: 1) Constructivism, 2) Inquiry, 3) Questioning, 4) Learning Community, 5) Modeling, 6) Reflections, 7) Authentic Assessment.

The seven main components of CTL are the main requirement in classroom teaching learning process. Below are the procedures how to apply CTL, including reading class activity, in the classroom teaching learning process.

1) Improve the understanding that the students will learn more effectively through self-learning, self-inquiring, and self-constructing using their own knowledge and experience. Teacher needs to encourage students to actively involved in learning process and use the students’ idea and experience to conduct the learning.

2) Do the inquiring activity to achieve desired competence in reading activity. In this step, the teacher presents the reading material in which the students need to analyze it by themselves. Try to challenge the students with their own idea and encourage them to apply their own ideas, experience, and interest to direct learning process.

3) Create learning community or learning group. In this step the students discuss the material with their friends and then they present in front of the class.

4) Questioning as a learning tool is useful for improving students’ curiosity. In this case, the teacher allows the students to ask something related to the material after their discussion and presentation.

5) Do the reflection in the end of learning to make students feel that they have learned something. Teacher provide enough time to reflect, analyze, and respect all ideas that expressed by the students.
According to the explanation of the two techniques above, here, the researcher tried to apply the techniques in this research by describing the effectiveness of them in teaching and learning reading comprehension.

METHODS

Type of research

This research was a quasi-experiment research with a quantitative approach. The design of the research used a pretest-posttest nonequivalent group design. The researcher used this design since there was no equivalency of competence from the groups, control group and experimental groups. To get the equivalence of the groups, tried out of the instrument was conducted to all students in the grade eight.

Setting of the research

This research was conducted at SMPN 1 Pecangaan Jepara, located in Jalan Raya Krasak Km. 16, 5 Pecangaan-Jepara. This school consists of 25 classes, eight classes of grade VIII and IX, and nine classes of grade VII, which each class consists of 24 to 26 students. Every class is facilitated with an LCD, a computer, display board and AC. Thus, it makes the students feel comfort to study.

The exact time for the research is on the first semester of academic year of 2013/2014, began on September 2013 through eight meetings (four weeks) with the following schedule.

<table>
<thead>
<tr>
<th>Table2. Research activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
</tr>
<tr>
<td>July</td>
</tr>
<tr>
<td>August</td>
</tr>
<tr>
<td>September</td>
</tr>
<tr>
<td>October</td>
</tr>
<tr>
<td>November</td>
</tr>
<tr>
<td>December</td>
</tr>
<tr>
<td>January</td>
</tr>
</tbody>
</table>

Population and sample of the research

The population of this research is all of the students of grade eight of SMPN 1 Pecangaan in the academic year 2013/2014, from VIII A, VIII B, VIII C, VIII D, VIII E, VIII F, and VIIIH. In order to ignore the subjectivity, the choice of control group and experimental group were randomly selected to get three classes out of eight classes. Then, the three classes were randomly selected to determine the experimental groups and the control group, they are: VIII A for the experimental group 1, VIII D for the experimental group 2, and VIII G for the control group.

Variables of the research

There are two variables in this research which include independent variable and dependent one. The independent variable is the teaching techniques, while for the dependent variable is the scores of students’ reading comprehension.

Technique and instrument of data collection

In this research, the researcher used a test to collect the data. The instrument stated here were 40 multiple choices reading comprehension test. In reading comprehension test, the researcher used pretest and posttest. Pretest was conducted before treatment to know the students’ ability in reading comprehension before...
applied CIRC and CTL while posttest was conducted to know the students’ achievement after the teachers applied the two techniques. The tests were 40 multiple-choice tests with four options covering the materials based on the basic competence of reading skills as stated on KTSP 2006, i.e. to comprehend implicit and explicit meanings of short essays in the form of descriptive and recount texts.

Validity and reliability of the instruments

The validity in this research was content validity. To get content validity, firstly, the researcher arranged the instrument based on theories stated before and the reading skill on KTSP 2006. Then it was consulted to the expert, to get the expert judgment and the determination whether the instrument was valid or not. Later on, the instrument was tried on first to know whether the item test can be used for getting the data with or without correction from the expert judgment. Before the instrument was used to get the data in the research, it was tried out first to the class which was not the experimental class or control class. The pretest instrument was tried on to the class VIII H while for the posttest instrument was tried on to the class VIII B. Having conducted the tried out, it was analyzed by Iteman version 3 and got 80 valid items of pretest and posttest from 120 ones used to get the data. While Alpha Chronbach’s analyses was used to show its reliability at 0.852.

Data analysis technique

In analyzing the data, the researcher used descriptive analysis and inferential statistical analysis. The data from pretest and posttest from experimental group and control group was analyzed by descriptive analysis to show the mean, standard deviation, variance, minimum score, maximum score, and sum in the form of table and flowchart diagram.

The inferential statistics was used to conduct the hypotheses. Before conducting the hypotheses, the data have to fulfill the requirement of pre-requisite analysis, involved normality distribution and homogeneity of variance.

FINDINGS AND DISCUSSION

Findings

Pre-experiment

As a quasi-experiment research, the early condition of both groups before treatment have to fulfill the prerequisite analysis, i.e. normality distribution and homogeneity of variance. It was needed to provide that the early condition of those groups was in the same level and the final result of this research was only influenced by the treatments.

The calculation of Kolmogrov-Smirnof shows that the p-value of the first experimental group is .156 while the p-value of the second experimental group is .146 and the control group is .081. As the p value is higher than the critical value 0.05, the data of those groups are normally distributed.

The calculation of the Levene statistic is 1.713 and the significance value is .187. Since the p-value is higher than the critical value, 0.05, meaning that the data were in homogenous. In other words, both the experimental groups and the control one were in equal.

Having normal distributed and homogenous, the data then analyzed by One Way Anova to find out the level of students’ reading comprehension before being treated, as described in the following table.
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Table 3. One-way Anova of pretest’s score

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>103.92</td>
<td>2</td>
<td>51.96</td>
<td>.396</td>
<td>.674</td>
</tr>
<tr>
<td>Within Groups</td>
<td>9839.42</td>
<td>75</td>
<td>131.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9943.34</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that at the df 2/75 the p-value is .674. Since p-value is higher than critical value, .674 > 0.05. It means that there is no significant difference of students’ pretest score of reading comprehension among the three classes before treated. In other words, the three classes were in the same level of reading comprehension.

Research data description before treatment

The statistical description of the pretest and posttest score of the first experimental group (CIRC), second experimental group (CTL) and control group is stated in the following table.

Table 4. Pretest and posttest descriptive statistics of experimental groups and control group

<table>
<thead>
<tr>
<th></th>
<th>1st Exp. Group</th>
<th>2nd Exp. Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pre</td>
<td>post</td>
<td>pre</td>
</tr>
<tr>
<td>Mean</td>
<td>58</td>
<td>70</td>
<td>57</td>
</tr>
<tr>
<td>SD</td>
<td>12</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Max</td>
<td>40</td>
<td>49</td>
<td>35</td>
</tr>
<tr>
<td>Min</td>
<td>77</td>
<td>86</td>
<td>78</td>
</tr>
</tbody>
</table>

Table 4 shows the score which is gained by the experimental groups and the control group in pretest and posttest.

Moreover, the score distribution of pretest is shown in the following diagram.

Figure 1. Pretest score distribution
Figure 1 shows the pretest score distribution of experimental group 1, experimental group 2, and control group from the minimum score to the maximum one. Comparing to the KKM of English in the school, i.e. 71, the students who pass the KKM from 1st experimental group is 5 (19%), for the 2nd experimental group is 3 (11%), and 2 students (8%) for control group.

The students’ score reach its achievement after the students being treated during the research. It can be seen in the following diagram.

Figure 2. Posttest score distribution

Figure 2 shows the posttest score distribution of experimental group 1, experimental group 2, and control group from the minimum score to the maximum one. Comparing to the KKM of English in the school, i.e. 71, the students who pass the KKM from 1st experimental group is 16 (61%), for the 2nd experimental group is 3 (11%), and 2 students (8%) for control group.

Testing hypothesis result

The pre requisite analysis – normality distribution and homogeneity of variance – must be fulfilled before calculating the hypotheses. For the normality distribution, Kolmogrov-Smirnov was applied to calculate it.

The result of the calculation shows that p-value from 1st experimental group is 0.117, for the 2nd experimental group is 0.129, and 0.146 for the control group. Since all the p-value is higher than critical value 0.05, the data are normally distributed.

For the homogeneity of variance, the calculation of Levene test is 1.867 and sig. is 0.162. As the p-value is higher than the critical value 0.05, the variance is also homogenous.

Having normally distributed and its homogeneity, the data are analyzed by inferential statistics to prove the hypotheses.

Testing first hypotheses

In conducting the first hypotheses, Acnova was applied. The result of the calculation is presented below.
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Table 5. Ancova of posttest score

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>3132.526a</td>
<td>3</td>
<td>1044.175</td>
<td>10.547</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>5626.453</td>
<td>1</td>
<td>5626.453</td>
<td>56.834</td>
<td>.000</td>
</tr>
<tr>
<td>pretes</td>
<td>1307.808</td>
<td>1</td>
<td>1307.808</td>
<td>13.210</td>
<td>.001</td>
</tr>
<tr>
<td>teknik</td>
<td>728.685</td>
<td>2</td>
<td>364.342</td>
<td>3.68</td>
<td>.030</td>
</tr>
<tr>
<td>Error</td>
<td>7325.846</td>
<td>74</td>
<td>98.998</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>330843.000</td>
<td>78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>10458.372</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. R Squared = .300 (Adjusted R Squared = .271)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table shows that the F value is 3.68 and p is 0.03. To prove the hypotheses the F value has to be confirmed to the F table with df between group is 2 and df within group is 75. The F table (2/75) in significance level 0.05 is 3.12. Since the F value is higher than F table, 3.68 > 3.12, the null hypotheses is rejected. It means that there is a significant difference in the reading comprehension of the students taught using CIRC, that of those taught using the CTL, and that of those taught using the conventional technique.

Testing second hypotheses

To prove the second hypotheses, the Scheffe test was conducted in the research.

Table 6. Scheffe test

<table>
<thead>
<tr>
<th>Techniques</th>
<th>Mean Difference</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIRC - CTL</td>
<td>7.53</td>
<td>2.93</td>
<td>.042</td>
</tr>
<tr>
<td>CONV</td>
<td>14.53</td>
<td>2.93</td>
<td>.000</td>
</tr>
<tr>
<td>CTL - CIRC</td>
<td>-7538</td>
<td>2.93</td>
<td>.042</td>
</tr>
<tr>
<td>CONV</td>
<td>7.00</td>
<td>2.94</td>
<td>.064</td>
</tr>
<tr>
<td>CONV - CTL</td>
<td>-1453</td>
<td>2.93</td>
<td>.000</td>
</tr>
<tr>
<td>CTL - CIRC</td>
<td>-7.00</td>
<td>2.93</td>
<td>.064</td>
</tr>
</tbody>
</table>

It can be seen from the table that mean difference between CIRC and CTL is 7.53 (CIRC is higher in 7.53 point than CTL), mean difference between CIRC and conventional is 14.53 (CIRC is higher in 14.53 point than conventional), and mean difference between CTL and conventional is 7.00 (CTL is higher in 7.00 point than conventional). It means that (a) there is a significant difference among the three techniques in reading comprehension of SMP students, (b) there is difference score of reading comprehension of SMP students from the each technique and (c) CIRC is the most effective technique in teaching and learning reading comprehension of grade VIII students of SMPN 1 Pecangaan.

Discussion

Having applied CIRC and CTL compare to the conventional technique in the research, a number point needs discussed. First, CIRC technique is more effective than conventional one. There is a significant difference of the two classes. There was 38.46% improvement of reading comprehension in CIRC class. However, in conventional class, the improvement was only 7.69%. This finding is in
accordance with the research by Slavin et al (1987:433-454) said that the use of full CIRC program can be expected to enhance students’ achievement. As in CIRC students cannot do activities in team before all the team members have finished their own activities. It means that every student has responsible to others before they do activities in team.

Similar to the research conducted by Durukan (2011) in measuring the effect of CIRC techniques on reading-writing skills in the students of Griserun Province, Turkish. This research found that: a) the students treated by CIRC had significant achievement in reading comprehension than those treated by traditional one in the pre-test, post-test, and retention test of RCAT (Reading Comprehension Achievement Test) at the p<0.05 level, and b) the students treated with CIRC showed significant achievement in written expression skills than those treated by traditional one in the pre-test, post-test, and retention test of WEAT (Written Expression Achievement Test) at the p<0.05 level.

Another research, which conducted by Muhlison, showed that there is significant difference result in comprehending text between the students, which are taught by CTL, 60.00, and the students, which are taught by conventional technique, 56.80. It means that the reading improvement of the students in experimental class has proven that CTL can be a good technique in developing reading ability. The two researches above support the finding of this research.

In line with the finding is a research by Ni. M. Yudasmini, et al, using CIRC towards reading interest and reading comprehension skill of sixth grade students in cluster VI Buruan. She said that First, there is a difference in reading interest between sixth grade students in Buruan cluster who learned using CIRC learning model and students who learned using conventional learning model. Second, there is a difference in reading comprehension skill between sixth grade students in Buruan cluster who learned using CIRC learning model and students who learned using conventional learning model. Third, there is a simultaneous difference in reading interest and reading comprehension skill between sixth grade students in Buruan cluster who learned using CIRC learning model and students who learned using conventional learning model).

The second, CTL technique is more effective than Conventional one. There was 30.62% improvement of reading comprehension in CTL class. However, in conventional class, there was only 7.69% improvement of reading comprehension. It has been proven by a research of the using of CTL in improving students learning outcomes is conduct by Pukjiwati. A significant result shown in her research using CTL to improve the quality of student learning outcomes of the Mathematics of Operations Troubleshooting Count Fraction in fourth grade elementary school Sumur 03, District Cluwak, Pati regency, through the medium of learning and teaching.

CONCLUSIONS
Based on the research finding and discussion above, it can be conclude that there is a significant difference in the reading comprehension of the students taught using CIRC, that of those taught using the CTL, and that of those taught using the conventional technique in teaching and learning reading comprehension of students grade VIII of SMP N 1 Pecangaan. It can be seen from the result of Ancova with F value is 3.68 than F table 3.12 and the difference mean among them, i. e. 14.53, 7.53, and 7.00. Additionally, CIRC technique is the most effective technique in teaching and learning reading comprehension at students grade VIII SMP N 1 Pecangaan. The sequence of the effectiveness among the three techniques is CIRC followed by CTL and conven-
tional technique. It is proved by the difference mean of them which shows that CIRC > CTL > conventional technique.

It is also suggested that CIRC technique is effective for students reading comprehension, so it is better for the teacher to apply the technique in teaching learning process. For the students, they should be more active and involved thoroughly in teaching and learning process to improve their reading comprehension. Finally, the next researcher can conduct any further research in the similar or the theme by extending it to other levels and subjects as it gave additional contribution to develop instructional technique and strengthen the similar theory.

REFERENCES
Ni M. Yudasmini, et al. PENGARUH MODEL PEMBELAJARAN CIRC (COOPERATIVE INTEGRATED READING AND COMPOSITION) TERHADAP MINAT BACA DAN KEMAMPUAN MEMAHAMI BACAAN.
The Effectiveness of Using CIRC and CTL in ...

Dian Ismawati, Sugirin

PADA SISWA KELAS VI DI SEKOLAH DASAR


