



Improving EFL Students' Higher Order Thinking Skills Through Collaborative Strategic Reading in Indonesia

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ABSTRACT

The study aims to investigate whether collaborative strategic reading (CSR) strategies can improve higher-order thinking skills (HOTS) of students. It is an experimental design using pre-test and post-test as an instrument. Research data was obtained by giving a reading test in one of the public vocational high schools in Surabaya, Indonesia. These test data were analyzed using independent sample T-test and paired sample T-test in SPSS. Results showed that Collaborative Strategic Reading (CSR) could improve higher-order thinking skills for students. Based on data analysis results, t count was found to be larger than t table. Moreover, the result of the paired-sample t -test also indicated a significant difference between pre-test and post-test scores of experimental students. Sig. Sig. (2-tailed) equals.000. To sum up, the strategy benefits students in enhancing higher-order thinking skills for students.

INTRODUCTION

In this digital era, the rapid development of knowledge, technology, and language has enforcing people to have a good quality of human resources. It requires people to master some particular skills in order to process all of those things. One of the most necessary skills to master is higher-order thinking skills (HOTS) because HOTS is a critical component of someone's critical thinking and problem-solving skill. According to Heong et al. (2012), HOTS is a skill that requires someone to be able to apply and process the information that he has got to find the answer to questioning a new situation. Moreover, Thomas & Thorne (2010) state that HOTS is a thinking process that is more than remembering or retelling the information. HOTS is demanding people to process the information by understanding, concluding, relating one information with the others, and using them to seek the solution of their problem (Jailani et al., 2017). When someone has higher-order thinking skills, they will be able to process and analyze all information that they have got and used them to find the solution to their problems. It is in line with the primary purpose of education in the 21st Century that is to provide students with the ability to think critically, to know what they do, and justify it based on their informed decision making (Armstrong, 2009; Gardner, 1999; Zohar, 2008). Thus, implementing HOTS is one of the essential skills for students because, in the real world, they will face many complex and complicated problems that require higher-order thinking skills to solve many problems quickly. In Indonesia, higher-order thinking skills has become a nationwide educational goal because of its importance

Based on the 2003 National Education System Law Number 20, the Indonesian Educational System aims to develop higher-order thinking skills of learners as a macro term. It implies that the teacher's task and the role are to provide a learning environment that allows students to develop the potential to acquire knowledge and HOTS as the core of classroom learning. In Indonesia, English teaching strategies using HOTS are mandatory since one of the learning goals through HOTS is to make

sure that students can analyze, evaluate, and create their knowledge (Retnawati, Djidu, Kartianom, Apino, & Anazifa, 2018). The pedagogy has transformed from traditional teaching, which emphasizes low order thinking skills (LOTS) to learning that focus on developing students' HOTS. The current curriculum used in Indonesia, curriculum 2013, is expected to generate students who are creative, productive, and innovative through its competencies. The curriculum 2013 integrates four essential things in which HOTS is included as one of them (Pratama & Retnawati, 2018) Brookhart (2015) defines HOTS in terms of the transfer, critical thinking, and problem-solving. HOT as a transfer means students not only remember the knowledge but also enable them to use what they have learned (Anderson & Krathwohl, 2001, p. 63). Furthermore, higher-order thinking as critical thinking means an ability to make a judgment about what to believe or do by reasoning, questioning, and investigating, observing and describing, comparing and connecting, finding complexity, and exploring viewpoints of all the information that they receive (Norris & Ennis, 1989, p. 3; Barahal, 2008, p. 299). Also, higher-order thinking as problem-solving means students thinking process in looking for the proper solution of their problem to reach a particular goal. (Nitko & Brookhart, 2007, p. 215)

Furthermore, the definition of higher-order thinking skills also can be found in Bloom's Taxonomy as the contradiction of lower-order thinking skills. Schraw et al. (2011: 191) classifies Bloom's Taxonomy into two categories that are lower-order thinking skills (LOTS) and Higher Order Thinking Skills (HOTS). Lower Order Thinking Skills (LOTS) consists of remembering knowledge (C1), understanding (C2), and application (C3). Meanwhile, Higher Order Thinking Skills (HOTS) includes analyzing (C4), evaluating (C5), and creating (C6). Heong et al. (2012) explain each cognitive process dimension, which categorized as higher-order thinking skills, namely analyzing, evaluating, and creating. First, analyzing is the ability to break the materials or concepts into parts and determine how the parts relate to one another or how they interrelate (Anderson & Krathwohl, 2001). In this stage, students will be able to analyze the information that they got and broke it down into parts. By doing this, students will be able to recognize the pattern of the information and then distinguish the cause and effect of a complicated scenario. It includes the ability to differentiating, organizing, and attributing. Second, evaluating is an ability to judge based on specific criteria and standards through checking and critiquing (Anderson & Krathwohl, 2001). In this stage, the students should be able to create an opinion about something and be responsible for it. The last, create, is defined as generalize new ideas, products, or even form a new perspective of a phenomenon. Create also means the ability to combine different elements into something new or different product.

Given the above evidence, the need for higher-order thinking skills in the teaching-learning process should be emphasized as higher-order thinking skills development process is not a natural process, and these skills need to be learned to master it (Putcha, 2012) better. It is in line with Heong et al. (2012) that state that higher-order thinking skills are teachable and learnable. Therefore, students should learn how to improve their HOTS during the process of teaching-learning English through students' learning activities. Students should be taught how to think logically, critically, creatively, and cooperatively. They should also be actively involved in the process of making a decision and solve their problems in real life. It can be one of the ways to foster students' critical and creative thinking, which enables them to develop their sense of skepticism to each information that they receive from their environment (Setyarini et al., 2018). However, there are several problems faced by students when they are learning English to develop their higher-order thinking skills. According to Seman (2017), the problems that may occur when the students try to master higher-order thinking skills are (1) they sometimes lose focus on learning, which can disrupt their thinking process. Most of English teacher rarely uses media or strategies that encourage students' HOTS. It is supported by Jaelani that says teacher found difficulty to develop HOTS since he/she cannot find the suitable learning tools (Jaelani; Retnawati, n.d.). Next, it is about the students' learning style. Most of the Indonesian students' learning style is very dependent on the teacher. Students rely too much on the teacher's explanation, and they will be lazy to think about the solution to the problems. Teachers always lecture/explain to students when they are conducting the teaching-learning process. It means that too much spoon-feeding will omit the students' creativity. According to Heong et al. (2012), teachers should develop students' higher-order thinking skills required to think broadly to discover a new challenge.

HOTS allows someone to apply new knowledge and information in order to be able to respond in a new condition. This condition is also supported by the implementation teaching-learning process to

develop students' HOTS is complex activities. Students must experiment or explore something to find new information based on the theory that had been read (King, Goodson, & Rohani, 1998). Also, it is not suitable for students' habits in Indonesia that depend on the teachers' help and always listen to teachers. This situation automatically makes students become passive learners, and it will encourage them to have low cognitive ability. The teachers do not give a chance for learners to implement their higher-order thinking skills. Besides, when teachers assess students, they do not create problems related to problem solving or real life. The assessment is still in LOTs levels, such as mentioning, explaining, or implementing. Teacher rarely gives problems related to analyzing or evaluating so that he/she finds it difficult to evaluate students' higher-order thinking skills (Retnawati et al., 2016).

Overcome those problems; this paper aims at providing the techniques of enhancing student's higher-order thinking skills in order to facilitate teaching-learning in the classroom setting. One of the learning strategies used in improving students' higher-order thinking skills is Collaborative Strategic Reading (CSR). CSR is a reading strategy that has been used since 1980 because of its benefits. First, it can enhance students' motivation, critical thinking, and collaborative learning (Brown, 2008; Salomon & Globerson, 1989; Lin et al., 2011). In CSR, students must participate in the process of teaching-learning English so that they can increase their reading comprehension. Second, it can combine different reading strategies and cooperative learning Grabe (, 2009: 233). In CSR activity, students must apply their comprehension strategies (Palincsar & Brown, 1984) while working cooperatively (Johnson & Johnson, 1989). Students learn how to activate their prior knowledge, make predictions, monitor their comprehension difficulties, clarify information, restate essential ideas of the text, summarize the text, and form appropriate questions about the text. There are four stages to improve students' HOTS using CSR (Klingner & Vaughn, 1998), namely preview, click and clunk, get the gist, and wrap up. In the preview stage, students must read the text in brief by not paying attention to the details. In this stage, students are required to use their prior knowledge about the topic and try to predict what they will learn. Students must notice headings, underlined words, pictures, tables, or graphs. The next step is to click and clunk. Clicks indicate to the parts of the text which the students can understand, and clunks indicate to the parts of a text (concepts, ideas, and words) that the students cannot understand. The purpose of this stage is to propose students to observe the details of the text. Next, it gets the gist. In this step, students should identify the main ideas of the passage and rewrite the main idea using their own words to assure that they get all the information in the text. The last step is to wrap up. Students make several questions and answers about the critical information that they get from the text. The main goals of this stage are to increase students' knowledge and understanding of the paragraph or passage. By implementing the stages of CSR, it can make the process of teaching-learning more productive and improve students' comprehension (Novita, 2010).

There are some relevant studies related to the use of CSR to improve reading skills. Seacrist (2012) says that the use of CSR is a successful strategy to increase the comprehension skills of students with learning disabilities. Furthermore, Rahman (2015) indicates that the implementation of Collaborative Strategic Reading has a significant effect on students' reading proficiency in Islamic Senior High School. Students who were in the experimental group had a positive effect on reading competence. Moreover, students had positive responses related to the use of CSR in learning reading. Furthermore, it is also said that informative text teaching with the Collaborative Strategic Reading Model positively affected fourth-grade students' reading comprehension and primary idea determination skills (Semercioğlu, Kiroğlu, & Tuncer, 2020). It is also supported by (Khonamri & Karimabadi, 2015) CSR instruction could improve students' critical reading, and students have a positive attitude toward the teaching-learning process in reading using CSR. Therefore, this study focused on improving students' higher-order thinking skills through CSR for Vocational High School. It is known that most of the students in vocational high school prefer to get a job after they finish their studies. In order to get a job quickly, they must master HOTS in their life. Thus, this research aims to know whether Collaborative Strategic Reading can improve students' higher-order thinking skills for vocational high school.

Framework

Higher-Order Thinking Skill

Higher-order thinking skill (HOTS) is a skill that requires someone to be able to apply and process the information that he has got to find the answer to questions in a new situation (Heong et al., 2011).

Anderson & Krathwohl (2001) state that higher-order thinking conceived as the top end of Bloom's cognitive taxonomy. In which, the goal of teaching in cognitive taxonomies is making students be able to apply the knowledge and skills that they got to the condition that the student has not thought of before (Leslie, 2016). To motivate students' HOTS, teachers must provide materials related to the real condition so that they can use their skills, such as their collaboration (work team), communication, and critical thinking (to solve the problem). It is in line with Brookhart, n.d. (2015) that defines higher-order thinking skills in terms of the transfer, critical thinking, and problem-solving. When students master HOTS, they do not only remember knowledge but also make sense of it and be able to use what they have learned. (Anderson & Krathwohl, 2001, p. 63). Students were emphasized not only memorization of the knowledge but also implement it. Students' ability to transfer knowledge to the real world where learners need to think critically is the focus on teaching higher-order thinking skills (Silva, 2009). To support students to be able to think critically, it must be focused on deciding what they believe or do. Students must have reasons or questions when they want to decide. It must be started by the same steps, such as observing, questioning, investigating, comparing and connecting, finding complexity, and exploring viewpoints (Norris & Ennis, 1989, p. 3; Barahal, 2008, p. 299). If all the steps have done, students can solve problems, and it is called problem-solving since problem-solving means students thinking process in looking for the proper solution to their problem to reach a goal. (Nitko & Brookhart, 2007, p. 215). Moreover, higher-order thinking skills question should be based on real-life because the information or knowledge that is got during the class is hoped to help students to solve their problems in daily life. Contextual problems related to the environment, health, lifestyle, science, and technology are the example that can be used as HOTS questions topic. Furthermore, the book also explains the five characteristics of contextual assessment, such as: relating, an assessment which is related with the context of real-life experience, experiencing, assessment which focus on exploration, discovery, and creation, applying, an assessment which requires the students to use the knowledge that they get during the class to solve the real problems, communicating and transferring, an assessment which requires the students to be able to transform the concept of knowledge to different condition/context. Based on the explanation Schraw et al. (2011: 191) classifies Bloom's thinking skill into two categories that are Lower Order Thinking Skills (LOTS) and Higher Order Thinking Skills (HOTS). Lower Order Thinking Skills (LOTS) consists of knowledge (C1), understanding (C2), and application (C3). Meanwhile, Higher Order Thinking Skills (HOTS) includes analyzing (C4), evaluating (C5), and creating (C6). The following table will explain each category.

Table 1. Description and Key Word of Bloom's Taxonomy Revision

CATEGORY	KEYWORDS
Remembering: can the student recall or remember the information?	Mention the definition, imitate the pronunciation, state the structure, pronounce, repeat, state
Understanding: Can the students explain Skill the concept, principle, Law, or procedure?	Classify, describe, explain the identification, placed, report, explain, translate, paraphrase
Applying: Can students apply their understanding in a new situation?	Choosing, demonstrating, acting, using, illustrating, interpreting, arranging schedule, making a sketch, solving the problem, writing
Analyzing: can students classify the sections based on their difference and similarity?	Examining, comparing, contrasting, distinguish, doing discrimination, separating, test, doing an experiment, asking

LOTS (Lower Order Thingking Skill)s

(HOTS) Higher Order Thinking Skills

CATEGORY	KEYWORDS
Evaluating: can students state either good or bad towards a phenomenon or specific object?	Giving argumentation, defending, stating, choosing, giving support, giving assessment, doing an evaluation
Creating: can students create a thing or opinion?	Assemble, change, build, create, design, establish, formulate, write.

Collaborative Strategic Reading

Since 1980, Collaborative Strategic Reading (CSR) has been used in teaching and learning due to its benefits such as enhancing motivation, critical thinking skills, collaborative learning, a positive attitude, group work and social skills (Brown, 2008; Salomon & Globerson, 1989; Lin et al., 2011). Grabe (2009: 233) claims that CSR is a promising approach to combined-strategies instruction that draws on both reciprocal teaching and cooperative learning, and that has been used with both L1 and L2 students. In this study, students are working in groups, and they are taught to activate their prior knowledge, to make a prediction, to monitor their comprehension difficulties, to clarify information, to restate essential ideas based on the text, to summarize the text, and to form appropriate questions about the text. The group work is organized around cooperative learning principles with each student in a group assigned responsibility for the task. Collaborative Strategic Reading (CSR) teaches students to use comprehension strategies (Palincsar & Brown, 1984) while working cooperatively (Johnson & Johnson, 1989). The goals of CSR are to improve reading comprehension and increase conceptual learning in ways that maximize students' involvement. CSR was designed primarily to be used with expository text found in social studies and other content area textbooks, yet CSR can also be used with explanation text. We should select reading material with well-formed, exciting passages that are conducive to strategy application. Such material is characterized by the following:

1. Providing clues that help students predict what they will be learning.
2. Have one idea in a paragraph.
3. The context that helps students connect information.

There are four stages in teaching CSR. Klinger and Vaughn (1998) illuminate the four stages: preview, click and clunk, get the gist, and wrap up.

Preview

At the first stage, students preview the passage. This preview helps the students to learn the most about the passage, to activate their background knowledge about the topic, and to make predictions. During the preview, students notice headings, underlined words, pictures, tables, and graphs.

Click and Clunk

At this stage, students click and clunk while reading. Clicks refer to understandable parts of reading, and clunk refers to complicated concepts, ideas, and words. The primary purpose of the click and clunk stage is to encourage students to pay attention to reading for understanding.

Get The Gist

At the next stage, students learn to get the gist by identifying the main idea in the passage. They rephrase the main idea in their own words to make sure that they understand the concept. The teacher asks the students to tell in their own words about the most important places, persons, and events they just read.

Wrap up

At the wrap-up stage, students formulate questions and answers based on the key ideas they have just learned. The main goals of the wrap-up stage are to improve students' knowledge, understanding, and memory of the paragraph. The students generate their questions with question starters such as who, what, why, when, where, and how. In the same way, these strategies can be used with EFL learners.

METHODS

This study used experimental design as this study had one research question, "Does collaborative strategic reading improve the higher-order thinking skills of EFL students in vocational high school?" To answer the research question, there were two groups in this study, which were experimental and control groups. The experimental group was a group in which the treatments were applied and in the form of Collaborative Strategic Reading in teaching reading. However, the control group was not receiving the treatments. The research instrument was tested as open-ended questions. The test was split into two, pre-test and post-test. The pre-test was given before the researcher gave the experimental group treatment, while the post-test was delivered after treatment. Pre-test and post-test were conducted to see the difference in scores of students before receiving treatments and after receiving treatments. Both tests had identical items. The population of this study was the eleventh graders of one of the vocational high school in Surabaya, East Java. In choosing samples, it was used as a cluster random sampling technique. Two classes chosen as samples. The students in IX TM 1 (engineering 1) were picked as the experimental group consisting of 34 students. The experimental group was a group that was given treatments that are teaching and learning higher-order thinking skills using CSR. However, students in IX TM 2 (engineering 2) were selected as the control group consisting of 32 students, and this group did not receive the treatments. The hypothesis of this study is:

- H0: the use of Collaborative Strategic Reading is not useful to enhance students' higher-order thinking skills.
- H1: the use of Collaborative Strategic Reading is useful to enhance students' higher-order thinking skills.

In this research, the instrument that was used to collect the data was tested. Tests were used to collect data about students' higher-order thinking skills. According to Ary (2010), a test is a set of questions given to an individual to know their response to assign a numerical score. A test is a device to measure one's ability or knowledge—two types of tests, pre-test, and post-test. Pre-test and post-test were conducted to see the disparity between scores of students before undergoing treatments and after obtaining treatments. Both had identical items. The tests consisted of short answer questions and writing tests. The pre-test was given before treatment, while the post-test was delivered after treatment. Although only the experimental group was treated, the pre-test and post-test were administered to both groups. The pre-test and post-test results were compared to determine whether Collaborative Strategic Reading is valid or not in enhancing higher-order thinking skills for students. There were some steps used for teaching higher-order thinking skills using Collaborative Strategic Reading. Before the experimental group was given treatment, both were administered pre-test. After that, the treatment was done, and the process of learning HOTS using CSR could be explained below.

Preview: This stage is used before reading activity. The goals of previewing are to introduce the text to students, activate their background knowledge, help them to make predictions about the text. Preview tries to motivate students and engage them in active reading. The questions used in this stage include a. brainstorming: What do we already know about the topic? b. Predicting: What do we think we will learn about the topic when we read the passage?

Click and Clunk: the purpose of this stage is to monitor what they are reading and to identify the information that they know more about, and information that causes students to experience difficulties in understanding. Click refers to when the reader comprehends the word and text, and clunk refers to comprehension breakdown or when the reader does not know the words. It is designed for readers to pay attention to their understanding of their failure. Some questions in this stage are: a. Were there any parts that were hard to understand (clunks)? b. How can we fix the clunks? Use fix-up strategies.

Get the gist; it is used during a reading with the purpose to teach readers how to identify the main idea of the passage. The students are asked to find the main idea of every paragraph in the text. This step is also trying to teach higher-order thinking skills in the stage of analysis. Then, the teacher asks students to evaluate the text by writing their opinion about the strength and weaknesses of the text.

Wrap up is an after reading strategy to provide an opportunity for students to review what they read by formulating questions. The benefits of this stage are to improve students' understanding,

knowledge, and memory. Students are asked to form questions and answer about the information that they got from the text. Then, they try to elaborate on their question and answer to make it into a summary. It can be the preparation of the creation stage in higher-order thinking skills. The teacher asks students to make a new explanation text by giving some alternative topics. The teacher also gives several questions about the topic in order to help the students to write their text. It is the process where the students learn the creating stage of higher-order thinking skills. The teacher implemented CSR instruction with the experimental group for eight sessions, and every session lasted for 90 minutes, and after the 8th sessions, the teacher gave the critical reading post-test to both experimental and control groups. After the data had got, the data were analyzed statistically by using SPSS 20. The first analysis was using the independent-samples t-test. It was used to compare the mean score of the specific variable for two different groups (Pallant, 2010). The independent-samples t-test stated whether there is any significant difference in the mean scores for the two groups (experimental and control group). The two groups are equal or have no significant difference only if the significant/Sig. (2-tailed) value is more substantial than .05. Moreover, if the value in the Sig. (2-tailed) is equal or less than .05; it indicates that there is a significant difference in the mean score of the two groups. Furthermore, the magnitude of the differences between the experimental and control group was seen by calculating the effect size. In the book, Pallant (2010) states that there are several ways to analyze the effect size, but the most common way to analyze it is by using eta squared and Cohen's d. This study is using eta square as a way to analyze the effect size. The eta squared is ranged from 0 to 1. The eta square cannot statistically be analyzed using SPSS, but it can be calculated by using the following formula:

$$\text{Eta squared} = \frac{t^2}{t^2 + (N_1 + N_2 - 2)}$$

The interpretation guidelines based on Cohen (1988), pp. 284–7):

.01=small effect

.06=moderate effect

.14=large effect

RESULTS

The result of pre-test scores from the experimental and control group was analyzed by using an independent sample t-test. First, it will be calculated the mean score from both groups. Below is the result of the mean score from the pre-test.

Table 2. Result of the mean score of pre-test between an experimental and control group

	N	Range	Mean	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic
Pretest Experimental	34	20,00	71,2500	,99178	5,78301
Pre-test Control	32	20,50	71,9844	,99785	5,64470
Valid N (listwise)	32				

Based on table 2, it could be seen that the result of the pre-test score in the experimental group and control group were relatively the same. The mean score of the experimental group was 71.25, and the standard deviation was 5.78; however, the mean score of the control group was 71.98, and the standard deviation was 5.64. It means that both groups have equal ability related to higher-order thinking skills. Furthermore, the pre-test was also analyzed by using an independent sample t-test. The result of the independent sample t-test was as follows.

Table 3. Result of independent sample t-test of pre-test scores

	Levene's Test for Equality of Variances				t-test for Equality of Means					
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Pre-test	Equal variances assumed	,011	,915	-,522	64	,604	-,73438	1,40794	-3,54705	2,07830
	Equal variances not assumed			-,522	63,911	,603	-,73438	1,40689	-3,54503	2,07628

Table 3 showed that the significant level of Levene's test from the results above was .915. Moreover, the equality of means from the results above, as seen in the Sig. (2-tailed) the column shows .604 level. According to Pallant (2010), if the Levene's test is greater than .05. It is assumed that it has equal variances, and the assumption of equal variance was not violated. The two groups are equal, or there was no significant difference only if the Sig. (2-tailed)/significant value is larger than .05. As the Levene's test and the Sig. (2-tailed)/significant values showed greater value than .05; it could be interpreted that both groups were having no significant difference / equal in the mean of pre-test score.

After that, it was analyzed the results of the post-test. The post-test scores were first analyzed by using an independent sample t-test. However, the post-test mean scores of both groups were also analyzed to know the students' improvement after receiving treatments.

Table 4. Result of the mean score of post-test between the experimental and control group

	Group	N	Mean	Std. Deviation	Std. Error Mean
Post-test	Experimental	34	85,5882	4,99465	,85658
	Control	32	80,6406	4,58826	,81110

Based on table 4, it could be said that the mean score of experimental groups was 85.58, and the standard deviation was 4.99, and the control group was 80.64, and the standard deviation was 4.58. It showed that the experimental group was doing better in the post-test rather than the control group. Furthermore, to ensure those results, whether there was an improvement in students' HOT, an independent sample t-test was used to analyze the results of the post-test score.

Table 5. Result of independent sample t-test of post-test scores

	Levene's Test for Equality of Variances				t-test for Equality of Means					
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Post-test	Equal variances assumed	,562	,456	4,183	64	,000	4,94761	1,18274	2,58482	7,31040

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances not assumed			4,194	63,965	,000	4,94761	1,17966	2,59094	7,30428

Table 5 showed the significant level for Levene's test was .456. It means that the assumption of equal variance is not violated. Moreover, the significant difference between both groups can be seen in the Sig. (2-tailed) the column which shows .000 level. Pallant (2010) states that if the value in the Sig. (2-tailed) is equal to or less than .05, which means that there is a significant difference between the mean score of both groups. It can be interpreted that there was a significant difference between the mean of the post-test score among the experimental group and the control group. Thus, using CSR in the process of teaching-learning English could improve students' higher-order thinking skills.

DISCUSSION

The result of the analysis of the students' pre-test and post-test scores derived from both the experimental and control groups indicates that the use of collaborative strategic reading is useful to improve students' higher-order thinking skills. The findings of previous studies have confirmed that the CSR approach had a positive effect on critical reading skills in the experimental groups. The study conducted by Khonamri & Karimabadi (2015) showed that forty students in the experimental group majoring in English language literature at the University of Mazandaran had learned HOTS using CSR for ten sessions. The results showed that there was a significant improvement regarding their critical reading ability. Moreover, there was a positive attitude toward the process of teaching-learning critical reading using CSR. nts had a positive attitude toward CSR. Rahman (2015) supported that the use of CSR could improve the students' reading proficiency when it was implemented in the experimental group in Islamic Senior High School 1 in Makasar consisted of 40 participants. The participants also had a positive attitude toward the implementation of CSR in learning reading. It was demonstrated that students were motivated and engaged when they learned reading since the steps in CRS were easily applied. Besides, the use of CSR also improved the students' competence, especially the competence of analysis and evaluate the information related to problem-solving (Thomas & Thorne, 2010; Thomas & Thorne, 2010). During group work, each student was responsible for their task, and this activity forced students to understand their responsibility to find the answer. They worked in a group to relate the information. Also, this result is in line with the theory of Brown (2008), Salomon & Globerson (1989), and Lin et al. (2011) who stated that Collaborative Strategic Reading (CSR) is beneficial in improving motivation, critical thinking, collaborative learning, group work, and social skills. Collaborative Strategic Reading requires students to work in a group. Group work is organized by giving each student in a group a different task responsibility. It will activate their collaborative learning by having each responsible for the task, as they should be able to discuss their finding with each other to find the best answer.

Moreover, this finding fits perfectly with the finding of some studies by (Retnawati et al., 2017), which mentioned that working in a group and solving complex problems during the learning process is essential to do in order to improve students' higher-order thinking skills. By working in a group, they can share and discuss the information or knowledge that they have about the learning material. It will enhance their critical thinking, which is part of higher-order thinking skills. According to the finding above, it assures that Collaborative Strategic Reading is useful to improve students' higher-order thinking skills. It can be seen from the results of post-test scores of the group that was taught by using Collaborative Strategic Reading is higher than the control group who are not.

CONCLUSION

In sum up, collaborative strategy reading (CSR) has a significant effect on students' higher-order thinking skills. It means that the use of CSR in the process of teaching-learning English can improve students' HOT. Students' competence related to how to analyze, to evaluate in the texts, and to create something was increased. It is recommended that English teachers should implement many kinds of strategies to motivate and improve students' HOTS and encourage them to be involved in the process of teaching-learning. The use of authentic materials gave students the responsibility to finish their projects when they work in a team.

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