

Enhancing EFL Student's Reading Comprehension Using Online-Based Reciprocal Teaching Strategy

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Abstrak

Dalam peningkatan kemampuan pemahaman bacaan berbahasa Inggris, banyak strategi yang sudah diterapkan dalam proses pembelajaran. Salah satunya adalah Strategi Pengajaran Timbal Balik yang dikembangkan oleh Palinsar dan Brown (1984) dalam bentuk pembelajaran tatap muka. Namun, sejak adanya penyebaran virus corona, hanya sedikit informasi tentang bagaimana menerapkan pembelajaran timbal balik menggunakan pembelajaran daring. Oleh karena itu, penelitian ini bertujuan menemukan apakah pembelajaran timbal balik berbasis daring dengan memanfaatkan aplikasi anotasi efektif dalam peningkatan kemampuan pemahaman bacaan berbahasa Inggris. Sejumlah 69 siswa EFL menengah atas berpartisipasi sebagai subyek dalam penelitian ini. Hasil analisa akhir dari pre- dan post-test pemahaman bacaan menyatakan bahwa adanya peningkatan dalam kemampuan pemahaman bacaan siswa setelah pengaplikasian pengajaran timbal balik dibantu dengan aplikasi anotasi. Anotasi membantu pengajaran timbal balik dengan menyediakan situasi kolaboratif untuk mendiskusikan teks menggunakan pengajaran timbal balik tanpa batasan waktu dan tempat, memfasilitasi materi bacaan dengan model bermacam-macam serta membantu siswa dalam menelaah dan memperbaiki pemahaman mereka terhadap bacaan berbahasa Inggris.

Keywords: pembelajaran timbal balik berbasis daring, anotasi, pemahaman bacaan, pembelajaran daring.

Abstract

In fostering English reading comprehension of Foreign Language (EFL) students, many teaching strategies have been implemented in the learning processes. One of the strategies is Reciprocal Teaching Strategy (RTS) which advanced by Palinsar and Brown (1984) in the form of direct instruction. Nevertheless, since coronavirus is spreading, little was known about how to perform RTS for teaching reading comprehension of English passages in the online classroom. Therefore, this research aims to find out whether online-based RTS integrated with an annotation app is beneficial toward students' reading comprehension enhancement or not. A total of 69 EFL students at the secondary level participated as subjects in this research. The final analysis result of pre- and post-reading comprehension tests reported that there is an enhancement in reading comprehension of the EFL's students after applying RTS supported by annotation tools. The annotations reinforced RTS by constituting a collaborative circumstance for discussing the passages using RTS without limitation of time or setting, facilitating reading substances in various forms, and supporting students to correct their comprehension of the texts.

Keywords: online-based reciprocal teaching strategy, annotations, reading comprehension, online learning course.

INTRODUCTION

In constructing the English curriculum and syllabi, fostering students' reading comprehension always becomes one of the primary purposes to be accomplished. Recently, reading comprehension has been emphasised on advanced cognitive skills (Britt & Gabrys, 2001; Abdel Halim, 2011; Yang, Gamble, Hung, & Lin, 2013), inclusive of the skills of questioning, establish hypotheses, explore and legitimise the evidence and assumptions (Langer, 1990, p. 815). Furthermore, reading comprehension is collaborating skills to define helpful information needed to apprehend passages, check the accuracy, reliability, and passage's point of view (Sanchez, Wiley, & Goldman, 2006) intensely, and integrate information of passages (Jenkins, 2006).

Moreover, reading comprehension skill is sophisticated. Therefore, the enhancement is not likely happened without adequate supports and instructions (Roberts & Roberts, 2008), primarily when reading passages are recorded in the foreign language. In non-native of English countries, for instance, Taiwan, even the university students regularly lack abilities, uniquely distinguishing and organising essential ideas of the texts (Liu, 2006; Huang, 2013; Lo, Yeh, & Sung, 2013), and require remedial English reading instruction.

Consequently, many teachers or educators feel discouraged because of student's comprehension when ascribing students to read books, historical articles, internet publications, or other works of literature, whereas reading comprehension is the foundational ability that required in various school subjects. Hence, arduousness leads to austere implications for students' educational achievement for their societal careers in the future (Okkinga, Steensel, Gelderen, and Sleegers, 2018).

One of the recommended strategies in learning reading English is the Reciprocal Teaching Strategy. Reciprocal Teaching (RTS) has been developed by Annemarie Palinscar and Ann Brown (1984). Reciprocal teaching is a method of commanding and leading-learners in reading apprehension (Okkinga, Steensel, Gelderen, and Sleegers, 2018), which has four stages that are questioning, predicting, summarising, and clarifying. The reciprocal teaching strategy is a face to face teaching and learning method that in the form of an interactive dialogue between teachers and students or students and the other students the substance and meaning of texts they just read. It also emphasises student-centred activity.

Several studies proved and became evidence of the definite drawbacks of the Reciprocal Teaching Strategy. Handayani (2016) found that reciprocal teaching strategy is a beneficial instruction technique to be applied in the classroom setting, especially an English reading

classroom. It is supported by the study conducted by Putri (2018) that showed that reciprocal teaching has a significant effect on student reading comprehension.

However, the spreading of coronavirus is restricting learning activity, especially reading English in the school. The new coronavirus (SARS-CoV-2) is an immensely transmittable disease that caused an epidemic of severe respiratory conditions (COVID-19). The epidemic turned into a global pandemic between January and April 2020, from its centre of origin in Wuhan, China. Furthermore, the pandemic has reached most countries around the world. As of April 14th, 2020, over 126,000 people around the world have died from COVID-19. World Health Organization had declared the outbreak of COVID-19 as a "public health emergency of international concern" on January 30th, 2020. Therefore, schools, universities, and public places are closed to prevent the outbreak of COVID-19. It "forced" face to face learning shifted into the online education to prevent the students from academically falling behind.

Additionally, many researchers have been expanding studies on the significances of online courses and how its impacts and challenges (Haber and Mills, 2008; Pina, 2008; Caspi, Chajut, and Saporta, 2008; Summers, Waiggandt, and Whittaker, 2005). Many observers contend that online education can give more perspective in education and refreshment of obsolete lectures by fostering the opportunities for students' involvements and more content's individualisation. Further, online learning also can reduce the costs and maximise the efficiency of education by permitting providers and labour-intensive industry to gains their productivity and compete substantially and creatively among them.

Even though there are several advantages to implementing online education, online learning has several barriers (Haber and Mills, 2008). The lack of time, training of teacher and institutional support are the crucial issues of conducting online education. The limitation of making social interaction undeniably more concerned in an online class. The concern happened because the flaws or the lack of social interaction between inter-students or students-instructor bring negative implications for the quality of instruction. Haber and Mills's finding (2008) reported that either students or instructors believed that when conducting the online course, the assignment is individual and the students do not have to interact. Most of the students want to do the work, turn it in, and they can end the class for that day. Therefore, most of the instructors agreed on the online course without any interaction can lead student's confusion about the instructions and the teacher's expectation toward them. Contrary to a face-to-face class,

where students listen and ask questions directly in class and get the answer from the other students or teacher, the online course students have to either figure the answer out by themselves or ask their teacher personally. Furthermore, the online course still can be implemented with several notes such as using explicit instructional models, supported by beneficial training for the instructors, providing student enrollment's guidelines by specifying prior training or experience in online course implementations and the expectations toward technical system requirements, controlling the quality of procedures which are adequate for the size and complexity of the quality online course, and establishing sufficient technical support for both students and teachers.

Recently, the concern of online education due to COVID-19 and its challenges also brought the implementation of reciprocal teaching strategy shifting into online settings. The nature of RTS that is a set of instructional models of teaching, particularly for reading, is supportive of its implication in the online environment. The shifting of RTS implementation into online courses already conducted in the previous studies which using supporting online tools such as an online RT system (Yang, 2010), Google Talk (e.g., Huang & Yang, 2015), and Annotate (Tseng, Yeh, & Yang, 2015). Among these online tools, annotation tools explicitly supported RTS implementation for teaching reading instruction by constituting a correlative reading setting for students in analysing passages information with stages of predicting, questioning, clarifying, and summarising.

Besides, Huang and Yang (2015) conducted research which established 10-week online corrective English reading course. The study involved 36 EFL university students in practising RTS with Google Talk via online conversations among teachers and members of each group. The research findings showed that after the treatments, the students made progressive enhancement in the use of reading strategy, reading comprehension, and self-efficacy. Equivalently, Yang (2010) integrated RT and a chat room, discussion forum, dialogue box, and annotation tool, then implicated in 129 low-achieving EFL university students. The results reported that there are improvements in the students' reading comprehension. However, the result of the research concluded that the online-based RTS alone was not adequate improving for students' reading comprehension and prompted additional tools that facilitate students to revise and discuss their use of RTS as their reading strategies.

Likewise, Yeh, Hung, & Chiang (2017) noted definite drawbacks on reading comprehension development of using annotation features to support RTS

in the online setting. The research findings showed that the students practised the reading strategy of the RTS and continuously revisited their previous predictions, clarifications, questions, and summaries made more progress in their reading comprehension. These studies all corroborate the advantages of Reciprocal Teaching Strategy on students reading comprehension and their combination into online instruction. Nevertheless, knowledge of EFL students utilises annotation tools, especially in Indonesia, to corroborate their use of RTS still insufficient. However, several pieces of research have reported that EFL learners fostered their reading comprehension after the application of RTS with questioning, predicting, clarifying, and summarising stages.

This research, therefore, aimed to explore the effect of integrating reciprocal teaching strategy in enhancing English reading comprehension with an online annotation tool that is google document which has been broadly associated in computer-based language learning programs (Hwang, Wang, & Sharples, 2007; Johnson, Archibald, & Tenenbaum, 2010; Tseng et al., 2015). According to the research purpose, the research question includes: Do students who are taught reading using online-based RTS achieve better in reading comprehension than those without online-based RTS?

Furthermore, the research question above generated the hypotheses which were going tested. Creswell (2012, p.126) and Bacon-Shone (2015, p.19) stated that there two types of hypotheses that are null hypothesis and alternative hypothesis. The alternative hypothesis (H_a) or the research hypothesis is a positive or expected result of the study that the researcher wants to discover. On the other hand, the null hypothesis (H_o) is a statement that opposes the alternative hypothesis. For this research, the hypotheses are below:

- a. The alternative hypothesis is students who are taught reading using online-based RTS achieve better in reading comprehension than those without online-based RTS.
- b. The null hypothesis is that students who are taught reading using online-based RTS do not achieve better in reading comprehension than those without online-based RTS.

Reading Comprehension

Apprehension is a downward process because it involves prior knowledge as the foundation in the pre-reading phase. To ensure the effectiveness of student's apprehension, students need to automatically perform a bottom-up decoding process to ensure that the memory reaches its full capacity to rationalise the text's pieces of information (Just & Carpenter, 2002).

Acknowledged decoding by itself does not allow readers to understand the text (Biggs & Moore, 1993). In the early stages of reading improvement, most the young readers were able to immediately decipher the correct words, until they had a little apprehension of what they read. In short, apprehension may not work, even if the decoding was successful. Teachers can combine this problem with an emphasis on decryption technology, but it costs money to understand the technology.

One way to promote early critical thinking and literacy is teaching reading to the students with a metacognitive approach. The metacognitive practice consists of three knowledge elements about reading which are universal knowledge about the process of reading, apprehension of individual strengths and weaknesses; Find out what is the purpose of reading (Kirby, 1988). Metacognitive readers know this. Special care is needed to understand the text. Attention decreases with time. More interest in reading new materials. Better apprehension for familiar reading materials. Metacognitive readers know their trends and increase their potential strengths and lessen their weaknesses. The metacognitive reader address reading and find only relevant information based on this goal. Lastly, metacognitive readers generate necessary information for their purposes. Therefore, metacognitive readers plan to read, observe, and evaluate reading (Krause, Bochner & Duchesne, 2003). Furthermore, metacognitive reading strategies can be studied at all levels of education (Center, 2005; Laverpool, 2008). One of the teaching methods to teach young metacognitive readers is to use RT technology (Palincsar & Brown, 1983; Brown & Palincsar, 1985; Biggs & Moore, 1993)

Reciprocal Teaching Strategy

Palincsar and Brown (1984) read the reading apprehension literature and conclude that adequate reading comprehension includes the following six points.

- Apprehend the explicit and implicit meaning of the text.
- Activate of relevant and affiliated prior knowledge.
- Focus on top-notch content and friction exceptions.
- Rate critical contents for internal consistency and compare existing knowledge and content.
- Use periodical reviews as part of on-going apprehension monitoring.
- Conclude to verify predictions, interpretations, and conclusions.

From this bottom lines, Palincsar and Brown (1986, p. 772) advanced the Reciprocal Teaching Strategy process that, in their styles and layouts, comes about within a social environment where students are divided into some groups consisting of four or five students

which work together. While the rest of the group's members apprehend the passages of the texts or reading materials that already prepared by teachers, each member of each group is to take turns in reading the texts or reading passages loudly. Reciprocal teaching manifests as each group-member successively are inclined to think about the significance and the roles of the leader/supervisor for the group. The roles of the leader/supervisor are to instruct, lead, and assure that the four strategies of Reciprocal Teaching Strategy, as listed below, are applied correctly in the classroom setting. Initially, the teachers, who gradually pass amenability for their application to the student's groups while keeping tracks of and scaffolding the roles of each successive leader/supervisor within each of the teams, teach and model the strategy of reciprocal teaching.

The Stages of Reciprocal Teaching Strategy

Doolittle, Hicks, Young, and Nichols (2006) elaborated in his study about the four elements of reciprocal teaching as follows:

a. Questioning:

Questioning includes the processes of student identifying information, themes, and ideas of the reading passages that are central and crucial enough to determine and reason for further consideration. This information is, themes or ideas comprehend or master is used as self-reflections of readers to show how well their apprehension to the texts. Besides, the exploration substances of the texts in-depth and indeed, the formation of meaning are also provided by questioning.

b. Summarising:

Summarising is the last stage after the identification of the vital information, themes, and ideas within passages and throwing in together into an unambiguous, distinct and brief statements that still load and represent the crucial meanings of the texts. It can vary according to a single paragraph, a part of the passage, or an entire text. Summarizing also accommodates the motivations and energy to make a summary for understanding the detail information of a text.

c. Clarifying:

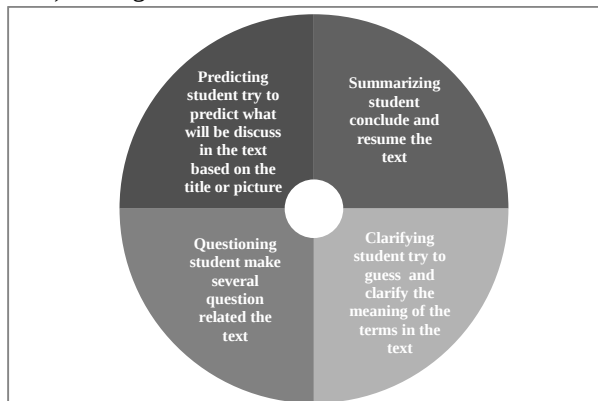
The identification and clarification of blurry, challenging, or unknown aspects of a text are included in clarifying. It gives motivation to students who still find difficulties such as unfamiliar vocabulary, awkward structure or sentence, obscure concepts, or unclear references to re-reading to diminish or remove confusion. It also can be helped by dictionaries or thesaurus to understand the context in the passages.

d. Predicting:

The predicting stage leads out readers to integrate his/her background of knowledge, the newest pieces of

information, and structures that they get from the reading passages to generate hypotheses related to what the authors try to present and the text's directions. It administers the allover explanation to approve or disapprove their self-generated hypotheses.

Figure 1. The Reciprocal Teaching (Palinsar and Brown, 1984) Strategies



Integrating Reciprocal Teaching Strategy and Annotation Tool in Online Setting

The technology advancement has been facilitating the opportunities to perform RT strategies in the online circumstance (Yang, 2010; Huang & Yang, 2015; Yeh, Hung, & Chiang, 2017) especially using annotation tools.

A beneficial feature of the annotation tool in performing RTS is enabling students to provide their highlights and comments on the text for a group member to read. By this feature, annotation tools foster questioning and predicting strategies by empowering the learners to compare their predictions and questions with a particular text next to the same passage and asking for group feedback, minimising the time and effort required to continue the interactive discussion about the text. Students can effortlessly share their ideas on particular information of text through such collaborative sharing, in a way, those patterns after the normal conversation. Therefore, they get more enthusiastic and excited about reading in-depth (Jan, Chen, & Huang, 2016; Li, Pow, & Cheung, 2015).

Another benefit of annotation software to foster RTS is to liberate students giving comments on a passage in multiple modes, such as texts, pictures, hyperlinks, videos (Ercetin, 2003; Sakar & Ercetin, 2005; Yao & Gill, 2009). Such features may support students with the clarifying stage to determine the meaning of unfamiliar vocabulary or ambiguous sentences in the reading process.

METHODS

This study belongs to quantitative research. The researcher used experimental quantitative research as the design. Ary et al. (2002:24) state that experimental

research can be defined as a research of how the effect of something called the experimental treatment of one variable on another variable. Ary (2002:276) adds that the researcher can manipulate one or more independent variables, which are experimental treatment, controls any other relevant variables, observes and measures the effect of the manipulations on the dependent variables. The design as follows:

Table 1. Randomises Subject Pre-test and Post-test Control Research Design

Group	Pre-test	Treatment	Post-test
Class Eleventh Science 3	T1	Using an online-based reciprocal teaching strategy	T2
Class Eleventh Science 2	T1	Without reciprocal strategy	T2

Participants were 69 students in senior high school, which registered the math-science class in one of the senior high schools in Indonesia. Before the treatment of the study, these students were identified as low-achieving EFL in senior high school based on the score of the English exam test.

Performing RTS with features of Google Document

Seven weeks of courses were constructed to perform RTS with questioning, predicting, clarifying, and summarising strategies (see Table 2). At the first meeting, the instructor elaborated the reciprocal teaching strategies and annotation using Google Document features to the students.

There are several reasons for choosing Google Document as the annotation supporting RTS in this research. First, the features of Google Document are adequate for online-based RTS by authorising users for

- highlighting texts and adding comments on passage based on RTS,
- sharing annotated work with hyperlinks that can be adjusted for public or limited access
- replying to others' comments or questions.

Second, Google Document is open-source software for public users, inclusively teachers. Users may operate all features without pay monthly or become a VIP or premium member like commercial annotation software such as Diigo, which obligate users to pay to use the full features pack. Lastly, Google Document is open and accessible both for PC and smartphone. The application of Google Document can be installed in the smartphone which is practical for teachers and students who already create a Google account, while annotation software such as CRAS-RAIDS (Chen & Chen, 2014), and PAMS (Su, Yang, Hwang, & Zhang, 2010) are non-public.

After introducing the reciprocal teaching strategy and annotation features of Google Document, the instructor gave demonstrations and simulations which model the RTS using Google Document (see Figure 2 and 3). Although the printed-guidelines were already given to the students, demonstrations aimed to give an example and insights to students how to perform RTS (questioning, predicting, clarifying, and summarising) by themselves with the annotation features of Google Document, as students were unfamiliar to RTS before this research.

First, the instructor elaborated and modelled how to categorise every stage. In the predicting stage, students might highlight essential clues, for instance, titles and headings, and created brief notes to explain their reasons and thoughts about what the possible ideas would come up in the passage. In the questioning stage, students might annotate the fundamental ideas or passage information and formulated related questions based on their prior knowledge. Then, in the clarifying stage, students could mark and look for explanations for difficult or unfamiliar vocabulary, unknown sentence patterns, or ambiguous meanings of the text. Finally, for summarising, students might use the crucial pieces of information from previous stages that already highlighted to compose text's summary with their sentences. After the instructor has modelled all stages of RTS, the 34 students of the experimental class were divided into seven groups.

Figure 2. The example of practising RTS with the annotation feature of Google Document.



Figure 3. The example of practising RTS with the annotation features of Google Document.



Since the number of students is 34, so groups were formed with five-person in each group, and four people for the last group. Group formation is to facilitate the students sharing and discussion among themselves using RTS reciprocally. Each group was given several English articles to practice RTS with the annotation features of Google Document. There were seven readings, with each one consisting of 150–350 words, were assigned to each group.

Table 2. The Timelines of the Research

Meetings	Description	Data
Meeting 1	Conducting pre-test	Pre-Test
Meeting 2	The instructor introduces the annotation features of Google Document and defines the RTS in detail based on the guidelines	-
Meeting 3	The instructor simulated how to conduct predicting, questioning, clarifying, and summarising using the features provided in Google Document	-
Meeting 4	Students annotate the explanation text using RTS	RTS records of Google Document
Meeting 5	Students annotate the explanation text using RTS	RTS records of Google Document
Meeting 6	Students annotate the explanation text using RTS	RTS records of Google Document
Meeting 7	Conducting post-test	Post-Test

This research gave semi online courses due to the instruction's elaborations and demonstration. The first day of the research was started by conducting pre-test for both classes, forming the groups in the face-to-face class

for the experimental class and explaining about the reciprocal teaching strategies and the criterion of each stage. The second and third meeting, the instructors elaborated and demonstrated the RTS student's guidelines and how to use the features in Google Documents with RTS. Since the students were EFL learners, the elaborations of RTS used both their first language and English as their foreign language. In the third meeting, the instructor and the students made a mini simulation of conducting the RTS and the evaluation of the learning in a face-to-face meeting before practising RTS in the online course. In the fourth meeting, the students were given two texts to annotate which the titles are "A Geyser" and "The Cacti". In these two texts, although they could perform RTS well, the students were likely not confident to use their ability in writing in English and commented in their first language instead. Even though the instructor encouraged continually to the students to use their English skill, the students tended to comment in their first language which Indonesian. Besides, several groups did not conduct summarising stages, and the summaries of groups were still raw and similar to the original texts. After giving more elaboration about summarising, in the fifth and sixth meeting, the instructors gave texts entitled "Fireflies", "Taste Buds", "How silk was formed", "Why Nails Always Grow" and "How the Shark Smell". Several students started to summarise using their own words. The post-test conducted on the seventh meeting.

RESULTS AND DISCUSSIONS

When the subjects took pre-tests of reading comprehension, the result reported that there was no crucial difference between the experimental and control group in terms of reading ability (see diagram 1). However, the limitation of vocabulary and English speaking habits forced the instructor and the subjects to use bilingual instructions in English and Indonesian. The data analysis stated that the experimental group benefited from the online-based RTS.

Also, the results were analysed using SPSS 16.0 version to compare score results from the experimental class and control class under the research question: Do students who are taught reading using online-based RTS achieve better in reading comprehension than those without online-based RTS?

The Data Result of Online-based RTS towards EFL students to Foster English Reading Comprehension

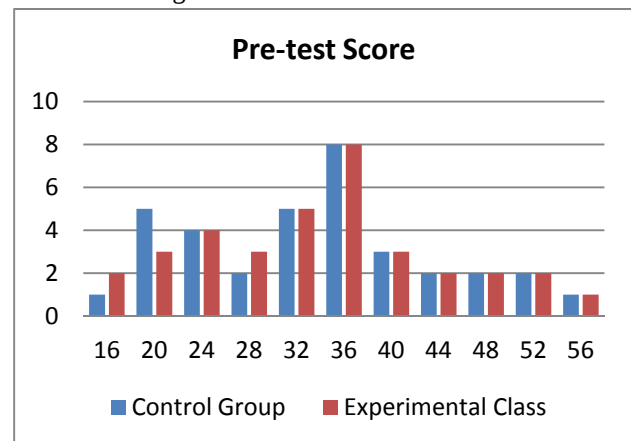
The data were collected by administering pre and post-reading comprehension tests. Therefore, a paired-samples t-test was conducted for scrutinising EFL students' reading comprehension before and after the

arbitration. RTS integrated with Google Document was the independent variable; meanwhile, the dependent variable was the EFL students' reading comprehension of English texts. Further discussion of the result as follows.

1. Student's pre-test score

Pre-reading comprehension test conducted in the first meeting before the instructor elaborating on RTS and online annotation tools. The result of both of the classes presented in the bar diagram below:

Diagram 1. Student's Pre-test score

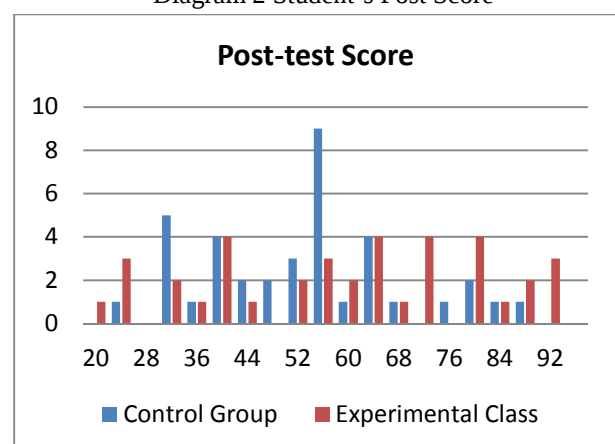


The data presented in the diagram reported that there is one student who got 56 as the highest score, and one student got 16 as the lowest score in the control class. While, in the experimental class, one student got 56 as the highest score, and two students got 16 as the lowest score.

Furthermore, those scores were obtained before the researcher gave any treatment to the experimental class. Therefore, the result indicated that they did a pre-test using their prior knowledge, and there is no significant difference among them.

2. Student's Post-test Score

Diagram 2 Student's Post Score



According to the data delivered in the diagram, it can be terminated that three students got 92 as the highest score, and one student got 20 as the lowest score in the

experimental class. While, in the controlled class, one student got 88 as the highest score, and one student got 24 as the lowest score.

Data Analysis

In complementing the statistical evidence of this research, Paired-Sample t-test formula was performed by the researcher using SPSS 16.0 version. The result could be seen below:

Table 3. Paired Samples Statistics of Experimental and Control Class

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 POSTTEST EXPERIMENTAL	69,71	34	14,118	2,421
PRETEST EXPERIMENTAL	34,59	34	9,592	1,645
Pair 2 POSTTEST CONTROL GROUP	55,94	35	14,812	2,504
PRETEST CONTROL GROUP	33,83	35	10,328	1,746

From the data on the table above, it can be concluded that the control class, which consisted of 36 subjects has 33,83 as the mean pre-test score and 55,94 as the mean post-test score. On the other hand, the experimental class, which was consist of 34 subjects has 34,59 as the mean pre-test score and 69,71 as the mean post-test score. The difference of pre-test scores both groups that were 33,83 and 34,59 has no significant effect based on the effect size theory of Cohen(1988) because of the value of Cohen's $d = 0,076$. The value of d was got by the mean pre-test score of both groups divided by the standard deviation. The formula, the rubric of interpretation and paired samples test of both group, are as follows:

Table 4. The formula and the rubric of interpretation

$d = \frac{M}{S} \quad D$	Effect Size (d)	Explanation
	$d > 0.8$	Very High
	$0.5 < d < 0.8$	High
	$0.2 < d < 0.5$	Average
	$0 < d \leq 0.2$	Low

Adapted from Cohen (1988)

Table 5. The Paired Samples Test of the Reading Comprehension Pre-test Score of Both Classes

	Paired Differences				t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			

		an	Difference				
			Low er	Upp er			
Pa ir 1	PRETEST EXPERIMENTAL - PRETEST CONTROL GROUP	1,059	2,384	-3,792	5,910	,443	,660

In order to know the correlation and the significance among the scores, the researcher used the pair samples correlations in SPSS 16 version. The result is presented below:

Table 6. Paired Samples Correlations of Both Classes

	N	Correlation	Sig.
Pair 1 PRE-TEST EXPERIMENTAL & POST-TEST EXPERIMENTAL	34	,598	,000
Pair 2 PRE-TEST CONTROL & POST-TEST CONTROL	35	-,136	,435

Based on the result of the analysis, the value of the correlation (r) of the experimental class is 0.598, and the control class is -0.136. Based on Pearson Correlation theory, if the coefficient value of r is nearer to 1, it shows more correlation, while if it is nearer to 0, it means low correlation or no correlation. Therefore, the correlation among scores of the control class is lower than the experimental class.

Since the probability is 0,05 ($p < 0.05$) and the value of the significance table of the data showed the experimental class has 0,000, it indicated there is a correlation between pre-test and post-test of experimental class ($0,000 < 0,05$). However, the value of sig's table of the control class is more than the probability, so that supported the conclusion of the coefficient value of r , which both scores of the control class do not correlate.

According to Santoso (2014:256), to know whether the final treatment results show any significance in the study, the researcher has to check also from the paired sample test in sig. (2-tailed) results.

The criteria of the result of paired-samples t-test are as follows.

- If the result of sig (2-tailed) is less than 0,05; it can be stated that it is significant and if sig. (2-tailed) the value was more than 0,05; it can not be stated as significant.
- If sig. (2-tailed) a value less than 0,05, H_a is accepted, and H_o is rejected, while if sig. (2-tailed) value more than 0,05, H_a is rejected, and H_o is accepted.

Table 7. Paired Samples Test of The Experimental and Control Class

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pai r 1	PRE-TEST EXPERIMENTAL - POST-TEST EXPERIMENTAL	-27,294	17,628	3,023	-33,445	-21,143	-9,028	33	,000
Pai r 2	PRE-TEST CONTROL - POST-TEST CONTROL	-22,114	19,177	3,241	-28,702	-15,527	-6,822	34	,000

Furthermore, from Table 7, the data showed that the treatment's intervention could also be seen from the sig. 2 tailed value ($0.000 < \alpha (0.05)$) and also the value of $t_{hitung} > t_{table}$ ($9,028 > 2.03452$). It indicated that there was a significant difference in English reading comprehension of the experimental class after practising online-based RTS in learning Explanation text. Hence, the alternative hypothesis (H_a) of the study which stated "students who are taught reading by using online-based RTS with online annotation tools achieve better in reading comprehension than those who are taught without online-based RTS with online annotation tools" was accepted. Therefore, the findings indicated that using online-based RTS is effective in fostering the students' reading comprehension on explanation text.

Besides, the result of the analysis reported that even the control class did not get treatment of online-based RTS showed a significant effect since $p < 0.05$ (see Table 7). This effect happened because the control class also learned the lesson using a worksheet or conventional technique such as the scientific approach.

Although the result of data analysis using t-test formula showed both classes have significant improvement in their reading comprehension with or without treatment, the effectiveness and the effect size are different. To differentiate the result of both classes, the researcher computed the Normalised Gain Percentage (Hake, 1998) and the effect size (Cohen, 1988). Normalised gain is used to determine whether a treatment is valid or not while the effect size is used to know the degree of the treatment's effectiveness. The data result as follows:

Table 8. The Result of Normalised Gain Percentage

Descriptives

KELAS			Statistic	Std. Error
1	CONTROL	Mean	31,1169	4,63079
		95% Confidence Interval for Mean	21,7060	
		Lower Bound	40,5278	
		Upper Bound	31,4784	
		5% Trimmed Mean	31,2500	
		Median	750,546	
		Variance	27,39610	
		Std. Deviation	-30,77	
		Minimum	85,00	
		Maximum	115,77	
		Range	30,39	
		Interquartile Range	-,310	,398
		Skewness	,004	,778
		Kurtosis		
2	EXPERIMENTAL	Mean	43,0627	4,86965
		95% Confidence Interval for Mean	33,1553	
		Lower Bound	52,9701	
		Upper Bound	43,4153	
		5% Trimmed Mean	47,5000	
		Median	806,260	
		Variance	28,39472	
		Std. Deviation	-6,67	
		Minimum	86,67	
		Maximum	93,33	
		Range	50,06	
		Interquartile Range	-,209	,403
		Skewness	-,975	,788
		Kurtosis		

The table above showed that the mean of the normalised gain percentage of both groups. The control class got 31,1169%, and the experimental class got 43,067%, which means the improvement of the experimental class is more than the control class.

Besides, the effect size of both classes can be computed from the result of the mean scores divided by the standard deviation. The final result of d_{exp} is 1.55, and $d_{control}$ is 1.15, which can be stated that the treatment in

the experimental class (online-based RTS) is more effective than treatment in the control class.

Furthermore, statistical analysis of experimental class data established the final interpretation that online-based RTS with an online annotation tool is competent to help the students in fostering student's reading comprehension. The results were supporting previous research findings (e.g. Fung et al., 2003; Spörer et al., 2009; Huang & Yang, 2015) that already did researches adopting the stages of RTS which typically in the form of direct reading instruction into an online setting. The pre-test and the post-tests result reported that EFL students made a noticeable improvement in their reading comprehension after performing online-based RTS with annotations. These results are supporting the findings of the previous study conducted by Yeh et al., 2017 that reported the fostering of EFL students' reading comprehension through integrating online annotation tools and the strategy of reciprocal teaching.

CONCLUSION AND SUGGESTIONS

The research finding above clearly stated that post-test reading comprehension score in the experimental class achieve better than control class. Unlike previous researches which performed RTS in conventional settings, this research explored the significance of the effect of integrating RTS with annotation tool into an online circumstance. It is proven by the value of sig-(2-tailed), normalised gain percentage, and the effect size of RTS.

In this study, there are several benefits of online-based RTS. First, online annotation tool help students independently discuss the stages of RTS and the passage without the constraints of time and setting. Besides, this research showed that annotation in online software facilitated the students to interact and respond to each other reciprocally. For instance, the students could share and reply by highlighting or quoting comments on a specific part of texts. Students could figure out their disagreements and agreements with each other's early assumptions, debate and negotiate in terms of constructing depth understanding by reviewing their ideas written in their annotations.

Second, different from paper-based annotations in direct RTS instruction, online annotations provided many multiple media tools such as add colourful highlights, pictures, texts and links to compose the reading more enjoyable and comprehensible. For instance, learners realised that they might add pictures, Indonesian definitions, or hyperlinks to clarify the means of unfamiliar and challenging vocabulary. Lastly, this research found that integrating annotation features with RTS in an online circumstance is beneficial to foster the

EFL learners reading comprehension since they (1) constituting a collaborative circumstance for students to discuss the passages using RTS without limitation of time or room, (2) facilitating reading substances in various forms, and (3) supporting students to correct their comprehension of the texts.

In researching online-based RTS, the researcher realised that instructional suggestions emerged for EFL learners and suggestions for further research about online-based RTS. First, since the EFL subjects in this research always using the first language in the English classroom, the researcher suggested that teachers may promote English as delivering language and emphasise on habituating English skills in the classroom. Second, the teachers can use questioning and predicting in the pre-reading process because those strategies will facilitate students to foster their critical thinking and stimulate the curiosity and willing of discussion on the passages among themselves. Third, teachers may formulate constructive feedback for students in the learning processes through the records of Google Document. Lastly, this research has suggestions for the further researches about RTS, particularly online-based RTS may adopt an experimental design with students which have average English reading habit. Besides, it may adopt a quasi-experimental quantitative research design by forming learners into two groups: one group consists of high-achieving and low-achieving EFL learners, and the other group consist of all low- achieving EFL learners. The study may analyse the results of both groups and discuss how low- achieving EFL learners may collaborate with high-achieving EFL students or vice versa with online-based RTS.

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