

Self-explanation Strategy: Supporting Students' Critical Thinking in Reading Comprehension for Science Class in Senior High School

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Abstrak

Belajar melibatkan perpaduan informasi baru ke dalam pengetahuan sebelumnya. Penerapan *Self-explanation* dapat mempercepat proses integrasi tersebut. Dengan demikian, penelitian ini mengeksplorasi kontribusi strategi *Self-explanation* untuk teks sains dalam mendukung pemikiran kritis siswa dalam memahami bacaan. Peneliti mengeksplorasi proses pembelajaran dalam membaca *Explanation text* dengan menggunakan strategi *Self-explanation* dalam suatu kelas IPA. Ada enam strategi yang dalam *Self-explanation*: *comprehension monitoring*, *paraphrasing*, *elaboration*, *logic or common sense*, *prediction and bridging inferences*. Tiga puluh dua siswa diuji dengan memberikan teks sains untuk mengetahui sebagian besar strategi yang digunakan oleh siswa. Kemudian enam siswa dipilih secara acak untuk diwawancarai setelah penerapan strategi *Self-explanation* dalam kegiatan membaca siswa.

Hasil menunjukkan bahwa penerapan *Self-explanation* mendorong siswa untuk berpikir lebih luas di luar text untuk mendapatkan pemahaman bacaan yang mendalam. Ada beberapa hal yang kurang rinci dalam penerapannya. Hal ini kurang sesuai jika dibandingkan dengan teori dalam penelitian sebelumnya. Namun penerapan ini mampu mendukung pemikiran kritis siswa atau disebut sebagai HOTS (*High Order Thinking Skill*) dalam proses pembelajaran. Selanjutnya, siswa menggunakan pengetahuan sebelumnya madukannya dengan berbagai strategi yakni elaborasi dan inferensi sedangkan sebagian besar siswa menggunakan strategi parafrase, yang masih tergolong dalam pemahaman tingkat rendah dalam memahami teks. Strategi parafrase tidak memerlukan keterampilan untuk menghasilkan inferensi dan menguraikan pengetahuan siswa sebelumnya dengan informasi baru dalam teks.

Kata kunci: strategi pembelajaran, *self-explanation strategy*, berfikir kritis, *explanation text*

Abstract

Learning involves the integration of new information into prior knowledge. Generating explanations to oneself or so-called self-explaining accelerates that integration process. Thus, this research explores the contribution of a self-explanation strategy to science text in supporting students' critical thinking in reading comprehension. The researcher explores the teaching and learning process of reading explanation text by using a self-explanation strategy in a particular science class. There are six strategies demonstrated in self-explanation: *comprehension monitoring*, *paraphrasing*, *elaboration*, *logic or common sense*, *prediction and bridging inferences*. Thirty-two students were examined by giving science text to know most strategies used by students. Then six students were chosen randomly to be interviewed after the implementation of self-explanation strategy in their reading activity.

The findings showed that the implementation of self-explanation encouraged students to think beyond the text to get a deep reading comprehension. There were several missing details in conducting this strategy in the classroom if being compared to the theory in the previous research. However, this implementation was able to support students' critical thinking or called as HOTS (*High Order Thinking Skill*) in the learning process. Further, students with prior knowledge were often varied in using the multiple strategies which are elaboration and inferences whereas most of the students used paraphrasing strategy, low-level comprehension, to understand the text. Paraphrasing strategy did not require a skill to generate inference and elaborate on what the students' existing knowledge with new information in the text.

Keywords: reading strategy, self-explanation strategy, supporting critical thinking, explanation text

INTRODUCTION

Many second language learners need good reading skills in English. Thus reading has always become a central focus in English teaching and learning activity. In spite of texts are made properly with the nature of second language reading, many learners still find difficulties in reading English. Most of their problems in reading English are in recognizing the vocabulary, complicated sentence structures, and long texts which may cause bored and difficulty in reading comprehension. The prior knowledge of every reader also affects reading performance. The more familiar readers have a schema of the texts provided the easier they comprehend the text. Readers also need to activate their schema for a text, or they cannot understand it (Richard, 2015).

To comprehend the text while reading, students not only construct their prior knowledge to the text but also they need to effectively process and develop critical thinking skills, analytical processing skills, and problem-solving skills in reading study purposes in the school. Critical thinking is important to support students' comprehension in reading. Moreover, critical thinking is required in the curriculum of 2013 which should be used in teaching and learning. Students need to be able to access, analyze, inference and apply information acquired in the text to their knowledge (Richard, 2015).

There are several types of texts established in the curriculum of Indonesia for senior high school students which have its level difficulties. Explanation text is one of the texts attached in basic competence number 3.8 in eleventh grade. An explanation text explains the processes which are involved in the process of natural or non-natural/ socio-cultural phenomena. The explanation sequence contains a sequenced explanation of why or how something occurs, e.g. how tsunami occurs (natural phenomena) or why class stratification still exists (socio-cultural phenomena). It shows that reading explanation text needs more effort in comprehending a text in deep. Students are asking why and how the phenomena occur while reading the text. In reading a text students tend to use their naturally critical thinking.

To support students in reading skill ability and build their critical thinking to comprehend the text is by applying a Self-explanation strategy conducted in the while-reading activity. This strategy is used for integrating students' critical thinking. McNamara (2004) states that self-explanation refers to the process of explaining aloud the meaning of the written text. It is designed to provide students' deep-level understanding while reading complex texts. Moreover, in self-explanation teacher provides students with a description of self-explanation and introduction to six reading strategies. Those were

presented to the participants as a means to support the self-explanation process. A description of each strategy and its example in using the strategies were provided by the teacher. There are six strategies in self-explanation. The first strategy is comprehension monitoring that students should always be aware of understanding. The second strategy is paraphrasing which is restating the text in different words. The third strategy is elaboration which students use their prior knowledge or experiences to understand the sentence such as domain-specific knowledge-based inferences. The fourth strategy is logic or common sense, so students try to use logic to understand the text such as domain-general knowledge-based inferences. The fifth strategy is predictions; students predict what the text may say next. The last strategy is bridging inference that students try to refer to an idea presented in a previous sentence in the text to better understand relations between sentences. This study focuses on students' comprehension activities in explanation text and how these activities interact with the students' reading skills. It is to design and test students' reading strategy involvements by using self-explanation to help a better understanding and learn from challenging text.

It is believed that all students are self-explaining to comprehend the text through many different reading skills strategies. Thus, the researcher wants to analyze students' performance while using a self-explanation strategy conducted by the teacher in teaching explanation text. Firstly, it purposes to analyze how self-explanation be applied in teaching reading to support students' critical thinking. Then, this research is held to know what strategies used by students when a self-explanation strategy is implemented in reading comprehension to support their critical thinking.

RESEARCH METHODOLOGY

The purpose of this research is to figure out the results of the implementation of a self-explanation strategy conducted while reading a complex text and what most strategies used by students while self-explaining the text. In line with the research questions, a qualitative descriptive is well appropriated to be conducted in L2 classroom teaching. It is a kind of research that focuses on examining and understanding of individuals or groups of individuals and their behaviors in-depth. It is also stated by Lambert in 2012 that descriptive qualitative research is a useful approach when the researcher wants to know in-depth, regarding phenomenon about who was involved, what was involved, where things took place and how it was conducted.

The study is conducted in a certain Senior High School in Kediri that already implemented in the 2013

curriculum for three meetings. The reason for choosing this school is that the teacher provides an activity that practices self-explanation strategy to the science class students in the explanation text lesson. The researcher observes this grade to know the process of teaching and learning of explanation text lesson- science text which is considered a complex text that needs a deep understanding. The researcher chooses this class because the teacher provides them to present a science text with some questions discusses it. Those mean that students already conduct a self-explaining system when they try to comprehend the text which then they deliver it in written form.

In this study, the researcher used field notes, audio/video recording, students' tasks and interviews as the research instrument. The researcher collects the data by conducting field notes by observing what strategies used by students when a strategy is implemented in reading comprehension to support their critical thinking. Kothari (2004) implies that observation is appropriate for descriptive qualitative research which is used to collect the data. He also defines that observation is a collection of information on how the researcher monitors directly to the activities to attract the researcher's interest without interfering with the subject. The researcher uses the observation technique to record all of the activities in the teaching and learning process. This observation is supported by using the audio/ video recorder to record the activities from the beginning, until the end of the teaching and learning process in the classroom as a shred of strong evidence that the researcher gives the real and valid data.

To answer the second question, the researcher collects the data by analyzing students' works of self-explanation in written form. The researcher analyzes each student's work by identifying what strategies used by students in applying self-explanation. Moreover, to support students' works, the researcher interviews to see their point of view while using an explanation strategy to comprehend the text.

The researcher analyzes the data by using a qualitative analytic strategy to investigate the behavior of the teacher and students' responses during the teaching and learning process. The purpose of this analysis is to make sense out of text and image data and to peel back the layers of respondents' responses and opinions. Based on Ary (2010) there are stages in analyzing qualitative research; organizing and familiarizing, coding and reducing, and interpreting and representing.

RESULT AND DISCUSSION

In this section, the researcher describes the findings after conducting the observation of the self-explanation implementation in the reading activity. The researcher

describes some aspects during the implementation of a self-explanation strategy in teaching reading an explanation text. The aspects are how the teacher delivers the materials, how well self-explanation strategies, the teacher and students activities during the implementation of self-explanation reading strategy, and students' results in doing HOTS questions. It will be discussed when it is compared to the theory of self-explanation stated by McNamara in 2004 in the previous study.

The researcher conducted the observation in three meetings and became an observer. The researcher paid attention to the class activity and took note from the beginning until the end of activities.

Implementation of Self-Explanation Strategy

Self-explanation has been stated by some researchers which benefits the students in having a deep level comprehension from reading complex text. Here, the general procedures in conducting self-explanation strategy by the theory of McNamara:

1. Introduction to self-explanation: Self-explanation was described as reading text aloud and explaining what the text means. Firstly, the students are given an example of how to self-explain the text material then add more information when necessary.
2. Introduction to reading strategies: comprehension monitoring, paraphrasing, elaboration, logic or common sense, prediction, and bridging inference were explained. For each strategy, a description of the strategy and examples of self-explanations using the strategies were provided.
3. The last procedure, the students are asked to practice in using self-explanation strategy orally and identifying the self-explanation strategy
4. The students are asked to answer several reading comprehension questions related to science/ complex text. Students are given nine questions: five questions for bridging inference questions and four questions for text-based questions.

When those procedures are compared to the theory from McNamara, in the first stage the teacher at the classroom did not directly introduce the descriptions and examples of self-explanation strategy. The teacher started the lesson inductively. She introduced one of the strategies, paraphrasing, implicitly in the pre-activity before reading the text. The teacher began the class, as usual, she gave some videos of disasters to trigger the students in understanding the material. When starting to conduct the reading activity. She gave the descriptions of each strategy of self-explanation to comprehend the text. However, she did not give complete examples of each strategy. She only showed how to self-explain using

some of those six strategies, for example, She said: *"from those sentence, it explains an earthquake which occurs when there is a movement from two parts of the earth surface to each other along fault line."* That sentence showed how to use paraphrasing strategy. She also showed another example using elaboration strategy in self-explanation: *"Let me tell you, if the volcano explosion the process is like when you pinch klepon, the contents of it cake will come out, it is same with the volcano explosion that the magma inside the volcano will explode when there are forces."* Here, the teacher did not show an example of each strategy. She only provided the definitions of each strategy. It made the students cannot understand well all of the strategies whereas this strategy needed detail and deep practice. Fortunately, the teacher kept triggering the students by providing some questions related to the topic and also asked the students to add some other questions. It helped much the students to self-explain so that the students were able to give their interpretation using those strategies.

The students directly practiced using the strategies. Unfortunately, not all students were able to use the strategy. Three students responded to teachers' commands. It could be the students' inability to using the strategies or because of the oral commands which sometimes students were not confident and fear to show up. Thus, in the third meeting, the teacher asked the students to practice using six strategies in written text individually. As stated in the research of Munoz, Magliano, Sheridan, & McNamara in 2006, less skilled readers were able to make more frequent bridging inferences when they were typing than they were thinking aloud or speaking. When it was compared to the theory, using the written task in explaining the material is acceptable, even though it did not appropriate with the theory stated by McNamara in 2004. By conducting self-explanation in written format, the students could freely express their thought without any forced to speak.

Critical Thinking while Reading Text

In the implementation of the self-explanation strategy, students were expected to be able to think critically. In the curriculum 2013 critical thinking, High Order Thinking Skills should be enhanced so that in the teaching and learning process teacher has tried to trigger the students to think critically from the beginning to the last activities. Based on the rubric of critical thinking especially in reading written by Mary J. Allen, the learning process has fulfilled some aspects from the rubric form. There were six aspects in reading rubric: comprehension, genres, relationship to text, analysis, interpretation and reader's voice. According to the implementation of self-explanation strategy in teaching and learning process,

there were five aspects fulfilled the aspects of the reading rubric:

1. Analysis. Students should be able to identify aspects of a text in the reading process (e.g., content, structure or relations among ideas) as needed to respond to questions posed in assigned tasks. It was shown in the whilst-reading when the teacher divided the students into eight groups and asked them to rearrange the generic structured of jumbled text in good orders only in five minutes. Here, the students identified the text structure of the text assigned by the teacher.
2. Relationship to text. It stated that students could use the texts in the context of scholarship to develop a foundation of disciplinary knowledge and to raise and explore important questions in reading activities. It was verified in the whilst-reading when the teacher asked the students to add more questions when identifying the text. It showed that students tried to explore more knowledge linked to the ideas of the text.
3. Interpretation. Students were expected to be able to demonstrate that s/he can read purposefully, choosing among interpretive strategies depending on the purpose of the reading. In the implementation of self-explanation in whilst-reading activity, students were demonstrating orally to their friends how to self-explain using strategies that could enable them to comprehend the text in deep. The students demonstrated the strategies used after discussing with their partners.
4. Reader's voice. Students did elaborate on the texts (through interpretation or questioning) to deepen or enhance an ongoing discussion. It was shown in the whilst-reading when students responded to teachers' questions by giving their explanation using the strategies of self-explanation orally.
5. Comprehension. The students were able to use the text, general background knowledge and/or specific knowledge of the author's context to draw more complex inferences about the author's message and attitude. This was shown in the whilst-reading when the teacher gave the example of how to make an inference and link their knowledge to the ideas which then the students also gave a response by giving another example. It was also verified in the post-reading after the students practiced how to use self-explanation strategies. Students draw more inferences and linked the ideas of the text with the knowledge students already had in written form.

According to the research which focuses on the use of a self-explanation strategy to support students' critical

thinking, the teacher also provided HOTS questions to assess whether the strategies well applied to the students. In the teaching-learning activity, the teacher at first gave eleven open-ended comprehension based-text questions to work in a group related to earthquake text after they practiced the strategies. In the following meeting, the teacher also provided the students the individual works to answer ten open-ended questions: six text-based questions and four HOTS questions. The result of the assessment showed that not all students could answer the questions correctly though they have practiced using the strategies. Based on the review results, some said that they had difficulties in the use of strategies. These are the students' responses in the interview perceived to the question "What are difficulties in applying self-explanation strategy in reading comprehension?"

Student 1: Not all strategies because student 1 does not understand how to apply all strategies

Student 5: Not really difficult, maybe just some strategies that student 5 understand the most

Student 6: Need time to practice and thinking

Those concluded that the practices in using the strategies should be more detail and need some time to practice so that the students were used to use the strategies well. The students also need the practice to recognize the other people self-explaining a particular topic, then the students were given a list of strategies and asked them to check the list of what strategies used by others' explanations. This made the students easily recognizing the strategies so they could use them well. This stage was also stated by McNamara and Ozuru in training the participants using a self-explanation strategy.

Most strategies used in Self-Explanation applied by Students

In reading comprehension, the students are trained to use strategies of self-explanation. There are six strategies in self-explanation: comprehension monitoring, paraphrasing, elaboration, logic or common sense, prediction, and bridging inference. From the table above, it can be concluded that almost all students used the paraphrasing strategy to self-explain the text. Paraphrasing might be the easiest way and the most understandable strategy that can be used in explaining the text. Some other strategies used by students are comprehension monitoring, elaboration, logic or common sense and bridging inference. Comprehension monitoring is a strategy that should be used from the beginning until the end of reading activity. Elaboration, logic or common sense and bridging inference are the strategies that

provided students deep level comprehension, in these strategies students are wished to make inference and interpretation associating with their prior knowledge and experience. Thus, there are not many students who can use these strategies. However, from the analysis result conducted by the researcher, there are no students used prediction in self-explaining the respiratory system text. Two students did not use any strategies in self-explaining, which means that their result is copy-paste the original text.

The researcher also categorizes and analyzes the strategies used in self-explaining explanation text. These are some examples of students' results in applying self-explanation strategy. The participant is chosen randomly because the researcher only wants to display a detailed example of each strategy.

Student 3

Comprehension Monitoring. It was concluded that student 3 used comprehension monitoring strategy because she self-explained the task without losing any information. The orders of information are in sequence.

Elaboration. It can be concluded that student 3 used elaboration strategy because she could elaborate the prior knowledge to the text, by adding the name of the hollow sac which functioned on the respiratory system: alveolus. From the sentence "Air is carried through lungs from your mouth all the way down to small structures that are like hollow sacs." she changed it into "Then it is transferred to a hollow sac that called alveolus."

Bridging Inference. It can be concluded that student 3 used bridging inference strategy because she associated the separate sentences into one idea. From the sentence "When oxygen levels are too low, the brain sends signals to the muscles that control your breathing so that they will work harder. People whose lungs are stiff and not flexible, their diaphragm also has to work harder in breathing." she changed it into "When oxygen levels are too low and difficult for breathing, the diaphragm also work harder. The brain send signal into muscles to work harder. But if the lungs are stiff not flexible, the diaphragm also work harder."

Student 6

Paraphrasing. Student 6 self-explained the text by changing the order of the words in the sentences. She paraphrased the sentences "The nose, trachea and lungs are the main organs which make up the respiratory system. This system allows the exchange of gases which are needed for us to live." into "The main organs which make up the respiratory system are

nose, trachea, and lungs. That organs is very important because make us to live, they are have to exchange the gases."

Elaborate. Student 6 tried to elaborate the breathing problems by giving additional information due to the problems. Here, she elaborated the sentences "When oxygen levels are too low, the brain sends signals to the muscles that control your breathing so that they will work harder. People whose lungs are stiff and not flexible, their diaphragm also has to work harder in breathing." into "People who has problems with breathing often use other muscles to breath, including the muscles of the next and shoulders. All this effort can make breathing very tiring."

Student 15

Comprehension Monitoring. It was concluded that student 15 used comprehension monitoring strategy because he self-explained the task without losing any information. The orders of information is in sequence.

Paraphrasing. Student 15 was concluded that he used paraphrasing strategy because he explained the sentence by using synonym of the verb and change the order of structure. He paraphrased the sentence "The nose, trachea and lungs are the main organs which make up the respiratory system." into "Organ that involves the respiratory system is nose, trachea and lungs."

Logic or common sense. Student 15 used logic or common sense strategy because he enlightened the possible common sense effects when people lungs are stiff and not flexible. From the sentences "People whose lungs are stiff and not flexible, their diaphragm also has to work harder in breathing." he changed it into "If the lungs are stiff and not flexible, it will make breathing very tiring. If breathing tiring, it will make people breath difficulty in the respiration and make problem breath."

Student 17

Comprehension Monitoring. It was concluded that student 17 used comprehension monitoring strategy because he self-explained the task without losing any information. The orders of information is in sequence.

Paraphrasing. Student 17 made their own words in explaining the text by changing the order of text and simply change the verbs so it was concluded that he used paraphrasing strategy. From the sentence "The nose, trachea and lungs are the main organs which make up the respiratory system. This system allows the exchange of gases which are needed for us to live."

he changed it into "Respiratory system is a series of organs that allows the exchange of gases (oxygen and carbon dioxide) which are needed for us to live. This system includes nose, trachea, and lungs as its main organ." He also used paraphrasing strategy in another sentences by changing the order of the sentence. From the sentence "The body absorbs oxygen and gives off carbon dioxide as air moves in and out of lungs. The structures that move air in and out of lungs are the muscles of ribcage and diaphragm, a sheet of muscle that sits beneath lungs and above abdomen." was changed into "When the air moves in and out of our lungs, our body absorbs oxygen and gives off carbon dioxide. This air movement is an effect of ribcage and diaphragm's muscle activity."

Bridging Inference. Student 17 associated these separate sentences into one idea. The sentence "Physical activity for breathing sufferer may cause short of breath. However, avoiding it might reduce lung function even more. Some examples of physical activity that can be useful include: walking, stretching, weight training, tai chi – practice breathing techniques and slow graceful movements that might help to relax and rejuvenate the body, boost energy, calm the mind and improve posture and balance, and hydrotherapy – exercise in warm water." was changed into "There are two opinions of doing physical activity: one says it is good, but other says not. But it is good to have a little exercise including slow and grace movement help them to be relaxed and rejuvenated, to help people with breathing problems to provide healthy condition for their body."

Student 24

Comprehension Monitoring. It was concluded that student 24 used comprehension monitoring strategy because she self-explained the task without losing any information. The orders of information is in sequence.

Paraphrasing. Student 24 made their own words in explaining the text by changing the order of text and change the verbs in simple way. She paraphrased the sentence "The nose, trachea and lungs are the main organs which make up the respiratory system. This system allows the exchange of gases which are needed for us to live." into "The respiratory system is an organ system used for gas exchange which has the main organs namely the nose, trachea, and lungs. When breathing, air entering through the nose will go to the respiratory tract to the lungs."

Logic or common sense. Student 24 tried to explain go beyond the text by giving detail explanation from the origin text. She used logic or

common sense strategy in this sentence “Physical activity for breathing sufferer may cause short of breath but avoiding it might reduce lung function even more.” Then she explained the idea in more detail into “There is a different assumption that physical activity should not be carried out by people with respiratory problems because it will worsen the condition of patients, but on the other hand there are those believe that for people with respiratory problems, daily activity can be a therapy to improve lung function during excessive physical activity or naturally.”

Student 31

Comprehension Monitoring. It was concluded that student 31 used comprehension monitoring strategy because she self-explained the task without losing any information. The orders of information is in sequence.

Paraphrasing. Student 31 made their own words in explaining by mingling the two sentences into one sentence. From the sentence “The nose, trachea and lungs are the main organs which make up the respiratory system. This system allows the exchange of gases which are needed for us to live.” was changed into “The respiratory system is the process of exchanging gases in the body using 3 main organs, namely the nose, trachea and lungs.”

Bridging inference. Student 31 explained the sentences by linking the ideas separated in the several sentences, so it showed that she used bridging inference in self-explaining the text. These sentences “The body absorbs oxygen and gives off carbon dioxide as air moves in and out of lungs. The structures that move air in and out of lungs are the muscles of ribcage and diaphragm, a sheet of muscle that sits beneath lungs and above abdomen. Air is carried through lungs from your mouth all the way down to small structures that are like hollow sacs. Each sac contains a mesh of blood vessels where oxygen can enter the bloodstream.” was changed into “The body takes oxygen through the nasal organs and flows into the lungs through the trachea. In the lungs, there is an exchange of oxygen and carbon dioxide gas. Oxygen will enter the blood and circulate throughout the body, while carbon dioxide will be released back through the nose.”

Elaborate. Student 31 associated the text with the knowledge about the symptoms experienced by sufferer and how to overcome it. The sentence “When oxygen levels are too low, the brain sends signals to the muscles that control your breathing so that they will work harder. People whose lungs are stiff and not flexible, their diaphragm also has to work harder in

breathing.” became “Usually, people with respiratory problems will experience tightness in the chest due to narrowed lungs. One treatment when a person experiences shortness of breath is giving oxygen.”

Based on the data in the result of the research, it was obtained that the students did not self-explained all six strategies. Moreover, no students used prediction strategy. From 29 students, it was obtained that there are 11 students used comprehension monitoring, 15 students used paraphrasing strategy, 8 students used elaboration strategy, 6 students used logic or common sense strategy, 0 students used prediction strategy and 8 students used bridging inference strategy.

Paraphrasing

From the result of strategies analysis, most of the students used paraphrasing strategy. According to McNamara in his research, paraphrasing is a relatively low-level strategy that does little, by itself, to aid comprehension. Thus, the students used this strategy easily in explaining the text. Paraphrasing strategy was relatively frequent than the others. The data also was supported by the result of interview. It was showed by interview question number 6: “What are the easiest strategy and the most difficult strategy in reading explanation text?”. These were the students’ responses towards the question”

Student 1: Paraphrasing by changing the structure of the sentence (put the last part of the sentence into the first one)

Student 2: Rewrite with own words/ paraphrasing in a paragraph

Prediction

Otherwise, there were no students using prediction strategy in the self-explaining respiratory system. The prediction could be used in pre-reading to predict what topic might be coming next. Based on the interview, the students stated that they used prediction in self-explanation. However, the researcher could not the analysis that the students used that strategy because they did not put their results in the written text. They only kept the ideas in their mind but helped them in understanding the text then expressed or restate it using another strategy.

Comprehension monitoring

It is a strategy that should be used from the beginning to the end of reading activity. This strategy could be assessed by testing the students whether they were aware while reading or not. So, the students would not miss any important information in the text. In table 4.2, the detailed example of students' work results, was not typed. It was caused by comprehension monitoring that could not be

expressed in the written text that should be oral. But, it could be assessed by reading the students result from the beginning to the end whether they missed information or un-structured ideas of each paragraph. Thus, the researcher could conclude that 11 students were using this strategy.

Elaboration

Elaboration, logic or common sense and bridging inference were the upper-level reading comprehension strategy. It requested the students to think beyond the text, elaborate their prior knowledge and link the ideas in the text into a complex statement. In elaboration, the students tried to elaborate their prior knowledge with the topic of a text. Some of them were successful in elaborating their knowledge but some others were not. The students could use the strategy only if they knew the topic. So, the prior knowledge played importantly in this strategy.

Logic or common sense

It was a strategy that everyone could do. This was not like the previous strategy, elaboration, which needed prior knowledge. Logic or common sense strategy required the logical thinking of students to think beyond the text. The students were required to interpret a logic possibility to make sense of the text. There were only six students who used this strategy. The students would be able to think logically when given a case. Indeed, the students should understand very well related to the case in the text before using this strategy. Even the students did not too understand the text, they could list the most possible statements that make sense.

Bridging inferences

This was the last inference strategy that could be practiced by students in reading comprehension text. In this strategy, students did the process of linking ideas and understanding the relations between separate sentences in the text. The students tried to relate some ideas from some sentences into one complex idea which better understandable.

Students tended to use the easiest strategy they could use in explaining the text which was paraphrasing strategy. Some of the students were still confused about applying all those strategies. Sometimes, the strategy needed prior knowledge in explaining the text. It also required a skilled reading from how to paraphrase or link the ideas into one complex idea. Thus, practices in using strategies were very important to have a better self-explain towards a complex text.

CONCLUSION AND SUGGESTION

Conclusion

Based on the result and discussion in chapter four, the researcher concluded that the teaching and learning process in reading activity was well-applied to the students. Some students actively responded to teachers' questions. They could understand the teacher's instruction and able to comprehend the content of the text. The students were able to implement a self-explanation strategy in their reading activity though only some well-implemented strategies. It was caused by a slight minus from the teacher in conducting six strategies: comprehension monitoring, paraphrasing, elaboration, logic or common sense, prediction and bridging inferences that she did not provide all the examples of each strategy in detail. Fortunately, the stages were well-delivered by the teacher so the reading activity could be directed to HOTS. However, the self-explanation strategy implemented in reading explanation text has supported students' critical thinking. It was proven by critical thinking rubric in reading comprehension, that the implementation has enough fulfilled the aspects. Thus, the self-explanation strategy has helped the students in comprehending the content of the text in deep.

In the reading activity, mostly all students were using strategies in reading a complex text: explanation text. Many students used paraphrasing strategies in self-explaining the text. It was believed that it was the easiest strategy that could be implemented in self-explanation. However, paraphrasing strategy was not grouped to support students' critical thinking. On the other hand, there were only several students using inference strategy: elaboration, prediction, logic or common sense and bridging inference which supporting to critical thinking. But then, the students were able to self-explain and restate the text well and able to answer almost all HOTS questions correctly.

Suggestion

According to the data described above, the researcher delivered several suggestions for the teachers, students, and other researchers. The researcher hopes that the suggestions could give benefits to those concerned with kind of this research in the future.

There are several suggestions to the teacher when conducting a self-explanation strategy in the teaching and learning process especially in reading explanation text. It would be better for the teacher to trigger the students' critical thinking in while teaching and learning process so that students could comprehend the text in deep. Next, the teacher should explain all the stages in detail. When conducting a self-explanation strategy, the teacher should give a simple example of each strategy that well-

understood so the students could use it easily in analyzing and comprehending the complex text.

There are some suggestions for students when they are faced with complex text which needs a deep comprehension. Students are not suggested to directly open the dictionary to find the meaning. Students should be used to comprehending the text by analyzing contextually. This can even help students to have much better in comprehending the text. Students should be self-explaining to infer the text with their knowledge by using strategies of self-explanation: comprehension monitoring, paraphrasing, elaboration, logic or common sense, prediction and bridging inferences to ease students in comprehending the text deeply.

For the future researcher who wants to analyze students strategy used in self-explanation, the researcher could research in more specific. It is better to conduct a case study to follow students' habit of reading comprehension for any levels of student. The data gained will be more specific and detail. The researcher can also maintain the text by her/his self so that it will be more challenging and appropriate with the level of the student. The researcher can also conduct quantitative research to see whether the implementation has a significant difference before and after treatment.

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