SELF-QUESTIONING STRATEGY TREATMENT IN ACADEMIC READING AND ITS CONTRIBUTION TO INCREASE LEARNERS' METACOGNITIVE READING SKILLS AND READING AWARENESS

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Abstract:

Membaca suatu teks membutuhkan strategi-strategi tertentu yang dapat membantu mempermudah pemahaman terhadap isi bacaan. Ada berbagai strategi yang bisa diterapkan guru atau dosen dalam membantu siswa atau mahasiswa memahami suatu teks. Salah satu strategi adalah Self-Questioning Strategy (SQ Strategy). Banyak penelitian menunjukkan efektivitas penggunaan strategi ini dalam membaca. Tulisan ini menguraikan dampak-dampak positif penerapan SQ strategy dalam membantu siswa atau mahasiswa untuk memahami isi teks secara lebih komprehensif, terutama mereka yang mengikuti matakuliah Reading. Secara umum, tulisan ini dibagi dalam dua bagian. Bagian pertama membahas teori-teori yang terkait dengan strategi SQ dan bagian kedua memaparkan hasil-hasil penelitian yang terkait dengan efektivitas penggunaan strategi ini dalam proses memahami teks, terutama dalam hal meningkatkan ketrampilan membaca secara metakognitif dan kesadaran membaca.

Kata Kunci: -selfquestioning strategy, -metacognitive reading, -reading awareness

Introduction

Achieving comprehension in English reading for the learners whose native language is not English or in which English as a foreign language takes a hard effort. Lems et.al (2010) described, "Reading a language which is not the learners' first language is a source of considerable difficulty. They find syntactic, semantic, and discoursal constraints in their reading process." (p. 171). When reading English texts, learners who learn this global language are faced with its grammatical rules, vocabulary, word meaning, text structure, and text theme that hamper them in achieving comprehension. Moreover, they are also much constrained by the fact that they do not apply a meaningful strategy that can provide them with successful comprehension from their

reading. However, it is not easy to be a successful reader because reading is a complicated process integrating top-down, bottom-up, interactive, constructionintegration, and recycling processes (Barnett and McCormick as stated in Shang and Chien, 2010: 41). It is, let alone, so much difficult to be successful in foreign language reading. Hossenfeld, as cited by Carrell (1989), identified some indicators of successful readers: kept the meaning of the passage in mind during reading, read in "broad phrases", skipped words viewed as unimportant to toal phrase meaning, and had posisitive self-concept as a reader (p. 121). By contrast, unsuccessful readers are those who lost the meaning of sentence as soon as they were decoded, read in short phrases, seldom skipped words as unimportant, viewing words as "equal" in terms of their contribution to total phrase meaning, and had negative self-cocepts as a reader. What makes it difficult to achieve the success of comprehending English texts for foreign language readers is that reading is essentially an activity that involves human metacognition whether they are native or non-native learners, young learners or adultlearners, poor readers or good readers, and low level readers or advanced readers. Because reading involves metacognitive processing, to achieve meaningful comprehension in reading a reader must employ a metacognitive reading strategy as well.

The use of self-questioning (henceforth SQ) strategy in reading process has been extensively studied. Researchers have looked deeply into the effects of this reading strategy on the enhancement of students's reading comprehension skill, metacognitive awareness, and perception of text comprehension.

A. Self-Questioning Reading Strategy

Meaningful and thorough reading needs focus and concentration. SQ strategy can help readers (e.g. students) focus and concentrate on their interaction and understanding of complex reading demand effectively (Schumaker et al., 1994). To train to generate selquestion when reading is more likely to facilitate comprehension the content of the text clearly and deeply (Shang and Chien, 2010).

Students' questions as part of teachers' metacognitive teaching framework meet tehir reasons to use in reading process because of several reason. As desribed by Kelley and Clausen-Grace, as cited in Klinger (2011), the reasons cover: To clarify something in the text, to figure out vocabulary, to find specific information in the text, to connect to the ideas and/or characters in the text, to use difficult senses (visualizing, tasting, smelling, feeling) to imagine the text, to understand why authors might have made the choices they did when writing the text, to identify the main idea, to summarize, and to help extend learning beyond the text.

To result in successful reading performance through SQ strategy involves three elements consisting of (1) active processing, which implies that students can become active readers and independent thinkers via generating questions in order to understand the text (Wong, 1985); (2) metacognitive processing, which indicates that teachers help students monitor their reading process via identifying important information in texts, regulating strategies to face difficulties, and self-questioning to enhance reading comprehension (Flavell, 1976 and 1979); (3) schema processing, which implies that students incline to use their prior knowledge to interpret information as facing the situation which incoming information of the text suits these expectations via self-questioning strategy use (Anderson, 1977). These elements of SQ strategy give impact on the increased comprehension in reading.

1. Active Processing Theory

Active processing theory assumes that self-questioning leads to increased comprehension and more and higher-level questions (Wong,1985; Rosenshine, Chapman and Meister,1996). They stressed that when students receive adequate training in how to generate their own questions, their use of self-questioning during or after reading usually results in improved comprehension. According to Rosenshine et al. (1996), "Asking and answering high-level questions during learning presumably facilitates students' comprehension by inducing such cognitive activities as focusing attention, organizing the new material, and integrating the new information with existing knowledge. Wong (1985) furthermore claims that self-questioning is also considered to be a metacognitive strategy because it provides learners with a way to test themselves; that is, it helps them to check how well they are comprehending what they are studying. Therefore, students must generate questions during reading to become active comprehenders and independent thinkers. Asking more questions leads to more

thorough processing (Wong, 1985). The type of questions generated in the framework of active processing of thinking is higher order or "think-type" questions.

Viewed from active processing, comprehensive reading involves active thinking to process various information from a text. In self-questioning activity, student readers are activating their mind so that it allows them to get involved in the content of the text actively According to researches' findings, the active mind will make students easily and strongly remember more information and more attention to the text (Clark et.al,1984), and further help to organize the materials as well as to provide opportunities for review (Chang, 1994). The active processing of students' mind can their concentration in reading and concentration the key factor to increase inferential comprehension (Davey and McBride (1986). Processing mind when using SQ strategy can stimulate students to generate more order questions compared to the other stategies such as teacher-question providing strategy and read and rereading strategy (El'Koumy, 1996; Davey and McBride, 1986).

2. Metacognitive theory

Metacognitive theory highlights the need for developing an awareness of the mental processes and cognitive functioning that allows students to monitor their comprehension (Wong, 1985; Rosenshine, Chapman and Meister, 1996). Self-monitoring questions (e.g., "Is there anything I don't understand?") cultivate awarenesss of important points in a text. Students must increase their awareness of their own mental processes, understanding and self-regulation. Type of questions generated must be self-monitoring questions, self-testing; predicting test and/or teacher-questions. Wong (1985) claims that when students are encouraged to self-question, they are more actively involved with the text and tend to process it at deeper levels and they may become aware of the important text information and may be able to monitor their comprehension more actively. Assigning signal words such as who, what, where, when, why, and how can encourage students in monitoring comprehension of the text via SQ activity.

In terms of metacognitive processing, self-questioning strategy is effective to make students aware of their lack of reading comprehension (Shang and Chien, 2007). Conscious awareness or metacognition in reading is very important. Wong's study 1985) revealed that ss long as students' metacognition is enhanced, they are able to

regulate their own reading process by asking things concerning the text they do not understand yet. Thus, in the same time students are able to monitor their understanding of the text because of their conscious awareness. Andre & Anderson (1978-1979; Haller et al, 1988; Wong & Jones, 1982) stressed that the use of self-questioning strategy can enhance learners' metacognition to promote reading comprehension.

3. Schema theory

In *schema theory*, readers call upon their experiences to build mental "scripts" that function as prior knowledge during reading and influence textual understanding. Hence, teaching students to activate relevant prior knowledge during reading enhances questioning, restructures the schemata and, consequently, leads to better comprehension (Wong, 1985; Rosenshine, Chapman and Meister, 1996). According to this theory, students must be able to activate relevant prior knowledge to connect it with the new information or knowledge in the text and the type of questions must be those that activate students' prior domain-specific knowledge. Lack of schemata would affect their reading process. Therefore, training students to activate their prior knowledge by asking "what do you think would happen if our A was ...?" or "how is the A related to your B?" (King, 1994).

Schema processing is the other feature that affects reading comprehension enhancement through SQ strategy. Schema processing is dealt with processing prior knowledge to connect with new information. As pointed by Wong (1985), schema has crucial effects in interpreting new information, just like ecpectations, hence, for good readers, they tend to use their prior knowledge to interpret the incoming information to aid their reading comprehension. SQ strategy can train students' schematic thinking or thinking to arrange something systematically using their background knowledge. Based on the findings of researches, proposing training students to apply SQ strategy in reading related to their prior knowledge can improve reading comprehension effectively (Singer and Donlan (1982), help students access their prior knowledge because students' prior knowledge is to be activated (King, 1994), and help them link the information in the text to their background knowledge (Afzali, 2010). The study by

Shang and Chien (2007) demonstrated that activating the process of thinking schematically can stimulate students to generate various types of questions in their SQ activity.

4. Metalinguistic knowledge and metacognition

There is the relationship between metacognition and reading performance (Alderson, 2000). Knowledge of strategies, the ability in infering meaning from surface level information, the lacks of knowledge about how the reading systems work, and difficulty to evaluate text for clarity and consistency are among the factors that influence reading performance. Therefor, metalinguistic awareness plays a part in learning to read; bilinguals profit from sensitivity to metalinguistic information (Block, 1992). When comparing proficient native and ESL readers with less native and ESL readers in terms of monitoring referent and vocabulary problem, Block (1992) concluded that the problem arised is more on reading ability rather than on whether they are first or second language readers of English. Proficient readers used monitoring process completely and explicitly.

Metacognition involves planning for a cognitive task, self-instruction to control and complete the task, and self-monitoring or evaluation of whether the task was completed appropritely (Bender as cited in Klinger (2011). Metacognition involves knowing about thinking and knowing about how to employ executive function processes to regulate thinking, awareness of personal attributes (e.g. reflexity and persistence), and belief (Gaskin and Pressley, as cited in Klinger,2011). Flavell (1976, 1979) claims that metacognition monitoring skilsl in reading plays role in developing new information when reading and solving reading problems.

The ability to use metacognitive skills effectively and to monitor reading is also an important component of skilled reading (Alderson, 2000). Alderson proposed some metacognitive skills as follows: recognizing the more important information in text, adjusting reading rate, skimming, previewing, using context to resolve a misunderstanding, formulating questions about information, monitoring cognition, including recognizing problems with information presented in text or an inability to understand text.

5. Metacognitive strategies

Strategies are one aspect of metacognition. Three categories are often included in metacognitive startegies for reading that consist of planning strategies, monitoring strategies, and evaluation strategies (Klinger et.al, 2011). When we read, metacognitive strategies help us to prepare for a reading task, monitor the task as we go along, and then evaluate it when we have completed it (Grabe and Stoller, 2002). In examining the reading behaviors of good readers, Pressley and Afflerbach, as cited in Klinger et.al (2011) studied that proficient readers use specific metacognitive strategies before, during, and after reading to assist their comprehension of text. Meanwhile, successful bilingual readers were more active readers and much more likely to use metacognitive strategies than the less proficient readers (Jimenez, Garcia, and Pearson (as cited in Lerms et.al, 2010). They also contended that in comparison with proficient readers, they were more likely to focus on the meanings of unknown words and to use their knowledge of cognates (i.e. words with similar spellings and meanings in two languages) to figure out word meaning.

Lerms et.al.(2010) emphasized metacognitive reading strategies include "fix-up" strategies used when comprehension broke down, such as rereading, using graphic organizers, looking for pronoun references and transition words that connect thoughts within and between sentences, and much more. Furthermore, Lerms et. al. stressed that teachers of English language learners should carefully analyze the language requirements for performing metacognitive task. Learners can't perform metacognitive tasks in a new language if they don't know the words that cue the task. Therefore, teachers should provide explicit instruction, model to use strategies, and give students sufficient practice in utilizing the strategies (Baker, 1984). Applying metacognitive strategies is not easy but it can be implemented by English teachers through certain procedures. Swanson and De La Paz, as cited in Klinger et. al. (2011) proposed the following metacognitive strategies in teaching reading. These procedures also can be used for SQ strategy training.

- 1. Begin with reading material that is easy for the students to read. In the beginning, the point is to teach students how to use the strategy, so the text is a tool to that end.
- 2. Explain the target strategy step by step.

- 3. Activate background knowledge.
- 4. Provide information abot students' current performance levels and emphasize the potentials benefits of using the strategy.
- 5. Model the strategy for the students, repeating the steps you explained to them in step 2 and using a think-aloud procedure.
- 6. provide several opportunities to practice as a whole class, in small groups, or in pairs. Help by prompting students to complete steps that might have missed or by assisting them to complete steps. Reexplain steps of the strategy as needed.
- 7. Provide opportunities for students to practice the strategy independently, with feedback and support as needed. Gradually fade assistance, until students apply the strategy on their own.
- 8. Help students generalize use of the strategy. Increase the difficulty level of the reading material students are using, and provide different types of reading materials. Remind them when it might be appropriate to use a strategy.
- 9. Provide students with a list or chart of the steps of the strategy, in case they need a reminder. Charts can be posted on the wall.
- 10. When students have used a strategy, they should sel-evaluate how well it worked for them.

6. SQ taxonomy

Buehl (2009) introduced the taxonomy of SQ strategy as an excellent framework for guiding comprehension instruction as students read and learn during classroom lessons. The following is the taxonomy of SQ strategy proposed by Buehl.

Taxonomy of Self-Questioning Chart

Level of	Comprehension self-	Focusing question	Comprehension
thinking	assessment		process
Creating	I have created new	How has this author	Synthesizing
	knowledge.	changed what I	
		understand?	
Evaluating	I can critically examine	How has the author's	Inferring
	this author's message.	perspective influenced	
		what he or she tells me?	
Analyzing	I can take my	How is this similar to (or	Making
	understanding to a	different from) other	connections
	deeper level.	material I've read?	Determining

			importance
Applying	I can use my understanding in some meaningful way.	How can I connect what this author is telling me to understand something better?	Making connections Inferring
Understandi ng	I can understand what the author is telling me.	What does this author want me to understand?	Determining importance Inferring Creating visual/sensory images
Rememberi ng	I can recall specific details, information, and ideas from this text.	What do I need to remember to make sense of this text?	Determining importance

Instead of searching for answers, students need to be able to find the questions (Buehl, 2009). Buehl empasized that we can relate each level of thinking to a statement a reader can make to assess comprehension of a text. He also streesed that that a deep comprehension—rather than surface-level comprehension—will include understanding at all six of these levels. For example, evaluating asks a reader to view a text through a critical lens: "I can critically examine this author's message." Each statement reflects an expectation of a level of thinking that a reader should factor in to construct an in-depth comprehension of text. In addition, walk students through how the comprehension strategies of proficient readers are also cued by the thinking at each level (Buehl, 2009).

C. SQ and its Significant Effects

1. SQ and Students' Reading Comprehension Improvement

In terms of the improvement of studemts' reading comprehension skill, in their study King et.al. (1984) compared SQ strategy and summarizing strategy trained to 87 students of a college developmental reading course. The results of three posttreatment tests—free recall, an objective test, and an essay test—were used as dependent measures. Their statistical analysis indicated different results for those three variables. In free recall, no differences were found to distinguish the self-questioning group from either the summary group or control group. In objective test, both summary and self-questioning groups had significantly greater means than did the control group. In essay

test, the summary group had a higher group mean than did the self-questioning group or control group. Likewise, a comparison study of using SQ strategy, summarizing, and notetaking carried out by King (1992) to 19 college students of remedial reading course showed that the self-questioners performed somewhat better than the summarizers and significantly better than the notetaking-reviewers. Self-questioners' and summarizers' lecture notes contained more ideas from the lecture than did those of the notetakingreview students, and and for long-term retention of lecture material, self-questioning may be a more effective study strategy than summarizing. Similarly, Graham and Wong (1993) conducted a comparative research into didactic and self-instructional training to 60 students of grade 5 and 6. Their study specifically found out that the self-questions focused students' attention on the task, provided a basis for decision making concerning the categorization of comprehension test questions, and reminded students to check their answers. The results of their study also indicated that both didactic teaching and self-instructional training of the strategy effected significant improvements in students' reading comprehension performance. However, self-instructional training was more effective in enhancing and maintaining students' reading comprehension performance than didactic teaching. Penkingcarn (1992)'s comparison study to grade 11-12 students also demonstrated the outperforming of SQ strategy compared to rereading strategy. It was found that question-groups scored higher on a reading comprehension test than the rereading group. Likewise, student questions group outperformed the teacher-questions group on reading comprehension, and on number of questions generated by L2 students of higher education (Vittayarungrangsri, 1993)

Qualitative and quantitative research findings by Shang and Chien (2010) to 118 freshmen majoring in English at I-Shou University. demonstrated that students' reading comprehension is enhanced significantly by self-questioning strategy training, especially for low level students, and students have positive attitudes toward employing self-questioning strategy in their future reading activities improved reading comprehension. The enhancing impact of SQ in reading texts is also shown in the research by Berkeley et.al. (2011). Their study to 57 seventh grade students of different etnics of inclusive middle school classes revealed that the students outperformed in comprehending content knowledge of social texts after employing SQ strategy. The result of this study also indicated that students in the self-questioning strategy group

outperformed students in a typical practice group on both multiple-choice and openended comprehension tests of the social studies content read.

Applying SQ strategy in reading gives contributing effects on reading comprehension and inference test. Cheung (1995) studied the effect of SQ strategy on grade 9 students in Hong Kong. His study revealed that SQ group scored higher on comprehension and inference test, especially below-average students benefitted from the training. The result of this study supports the research findings by Davey and McBride (1986) who found that SQ reading strategy increased students' inferential comprehension.

The application of SQ strategy is also significant in literary studies. Research findings by Janssen et.al, 2010 and 2002; Singer and Donlan, 1982) indicated that using SQ strategy in reading short stories improved students' story appreciation and quality of story interpretation. In his study to 32 Persian undergraduate students, Afzali (2012) found out that SQ strategy improved participants' comprehension in literary texts. In their case studies, Kooy, 1992; Commeyras and Sumner, 1998) provided indication for the motivating effect of SQ in the literature classroom. The results of their studies showed that reader-based questions make students motivated to ask meaninghful questions, and to think more deeply about stories. Besides, students also responded positively toward the literature approach.

2. SQ and Increase in Students' Reading Awareness

Apart from giving significant effect of SQ strategy on students' reading comprehension improvement, this strategy also affect readers' metacognition. Some studies have provided indication of better cemprehension monitoring ability in reading process when using this metacognitive strategy. Shang and Chien's research (2007) to 118 freshmen majoring in English at I-Shou University found that students under the investigation get promotion in organization and thinking ability after being trained by SQ strategy. Research finding by Graham and Wong (1993) indicated that SQ as a reading strategy increased students'metacognitive knowledge (Graham and Wong, 1993). This stategy provided grade 4 students with better comprehension monitoring as resulted from research finding by Baumann, Seifertkessell and Jones (1992). Neber (1999) in his research to Grade 7 of German students revealed that students in knowledge-generating

questioning condition outperformed the students in the process-controlling questioning condition, in knowledge construction. Andre & Anderson (1978-1979) and Haller et al. (1988) also found that SQ used as a strategy in reading texts enhanced learners' metacognition to promote reading comprehension.

However, previous studies dealt with investigating SQ effects on learners' thinking ability, knowledge construction, and metacognition. They are less ecplicit in its exploration of how SQ strategy in reading English texts gives impact on students' metacognitive reading conceptualization, particularly to Indonesian EFL learners

With regard to how SQ strategy is perceived by learners, some studies show both positive and negative perception of the SQ as a strategy used in students' reading process. In their study, Berkeley et.al (2011) surveyed 57 seventh grade students as the research participants and they identified 88% viewed it as a strategy that helped them remember what they had read. SQ was perceived as a very positive strategy in reading because it could help students pay more attention to the content of the text actively (Shang and Chien, 2010), remembered more information from reading passages (Clark et.al, 1984), concentrated more on students' reading and more attention to the text (Davey and McBride, 1986). However, this strategy is not only viewed positively, but it is perceived the other way around. Foote (1998) claimed no positive effect between student-generated questions and reading comprehension if lack of prior knowledge; unfamiliar with the topics of the texts. The other researchers also claimed that no benefits for higher metacomprehension and lower mental development, and those who do not get any training of using SQ strategy (DeLisi, 2001, El-Koumy, 1996). According to Miciano's (2002) research, there was no significant improvement of students' reading comprehension after self-questioning strategy training. She proposed that the participants' various cultural backgrounds, time constraints of employing selfquestioning strategy, the method of comprehension evaluation used, and the nature and duration of question-formulation training are the possible key elements to affect the outcomes. This strategy also does not substantially increase normal achieving students' reading performance because they already have higher meta-comprehension to monitor their reading process (Wong and Jones, 1982).

D. Concluding Remark

Previous studies have examined both postive and negative views of SQ as a reading strategy. However, they did not explore much more learners' perception of how SQ strategy in reading has beneficial effects on students metacognitive reading skills and metacognitive reading conceptualization.

To the best of my knowledge and based on the researcher' own teaching experience, many Indonesian EFL learners are most likely to approach reading passively, reading heavily on the bilingual dictionary, and spending much time in translating word by word or sentence by sentence. They often read without knowing so much information from texts after reading. Moreover, they are not well equipped with a reading strategy that can promote their metacognitive reading skills and metacognitive reading awareness or conceptualization. One of the contributing factors that can cause this serious reading problem is that they often select ineffective and inefficient strategies with little intent. Strategies such as relying on teacher's questions, looking up dictionary, answering questions based on the given questions are the reading strategies employed by Indonesian EFL learners when reading English texts. Employing an alternative strategy that can give much beneficial effects on their reading performance and comprehension enhancement, is much less paid attention and neglected by the learners, even by their English teachers.

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