

THE EFFECTS OF SELF-QUESTIONING AND PERCEPTIONS ON LEARNING READING COMPREHENSION OF THE EFL STUDENTS AT A UNIVERSITY LEVEL

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Abstract: This study aimed to determine the effects of self-questioning on pre-intermediate EFL students' reading comprehension and explore their perceptions of learning to read with self-questioning. A quasi-experimental design was carried out among two groups of sixty-eight Vietnamese pre-intermediate students over a nine-week reading course using self-questioning and teacher-posed questions. The research instruments used were pre-and-post tests for reading comprehension, writing, and a questionnaire consisting of 28 items. The results of the study showed that self-questioning had a positive effect on reading comprehension. Data from the pre-test and post-test indicated that there were significant differences between the self-questioning group and the teacher-posed questions group in reading comprehension, especially local comprehension and writing related to the reading passage. The data from the questionnaires also revealed that the students had a positive perception of learning with self-questioning. The study suggested that self-questioning should be employed to improve the reading comprehension of pre-intermediate EFL students.

Keywords: Self-questioning, reading comprehension, positive perception, pre-intermediate, EFL students

1. Introduction

Reading is the most crucial medium for knowledge acquisition at all educational levels (Freire, 1983). Learners acquire language when they are exposed to the language and receive comprehensive input (Krashen & Terrell, 1983). Elley and Mangubhai (1983) suggested that through reading learners increase their exposure to language input. In the context of teaching to read in a university in the Mekong Delta, the current teaching methodology has the tendency to focus on one component of true or false knowledge of the texts (Nguyen, 2022). This methodology is embedded in the common situation of teaching reading in EFL contexts that are still around accuracy-based and passive reading (Correia, 2006).

In the two recent reviews of research concerning reading engagement, the use of self-questioning was reported by Daniel and Williams (2021) and Joseph et al. (2016) as yielding deeper reading of texts. In particular, when students receive sufficient instruction on how to construct their own questions, their use of self-questioning during or after reading typically results in enhanced understanding. Especially, several quasi-experimental studies have proven the effects of self-questioning on reading comprehension (Berkeley, et al., 2011; Khansir & Dashti, 2014; Nguyen et al., 2016). However, self-questioning facilitating students' reading comprehension remains scarce in the pre-intermediate level of English proficiency.

There are a few factors that lead to the design of the present study, including the gaps in previous relevant studies. First, researchers have investigated the effects of self-questioning on different angles of learners' reading comprehension. In particular, self-questioning helps students improve their literal comprehension (Berkeley, et al., 2011; Khansir & Dashti, 2014), reorganization (Singer & Donlan, 1982), inferential comprehension (Taylor, Alber, and Walker, 2002) and reading engagement (Nguyen et al., 2016). However, the dependent variable of previous studies mainly focuses on reading comprehension at textual level. As a result, the current study will focus on the students' reading comprehension at response level. Second, the participants of these studies are school-age learners (Berkeley, et al., 2011; Davey and McBride, 1986, King, 1991; Khansir &

Dashti, 2014) to students majoring in English (Nguyen et al., 2016) or students with disabling learning (Taylor et al., 2002). The participants' levels of English proficiency are beginning, elementary, or upper-intermediate, but pre-intermediate English proficiency is rarely the subject of research. Therefore, the current study chooses pre-intermediate EFL students as participants. Finally, many researchers have investigated the effects of self-questioning on reading comprehension of expository texts (Berkeley, et al., 2011; Khansir & Dashti, 2014). With reading comprehension of narrative texts, previous studies use novel extracts (Taylor et al., 2002). However, the current study will use short stories (Nguyen et al., 2016; Singer and Donlan, 1982) as reading materials.

With the justification just mentioned, the B1 Preliminary English Test (PET) is considered as the prime priority of Tra Vinh University's General English classes. The PET test includes narrative passages in some of the reading and writing parts. Specifically, Part 3 of the writing test requires candidates to write a short story of 100 words. This study is conducted to examine the effects of self-questioning on reading comprehension of pre-intermediate EFL students with narrative texts. The study is aimed at addressing the two following research questions:

- 1) What are the effects of self-questioning on pre-intermediate EFL students' reading comprehension?
- 2). What are pre-intermediate EFL students' perceptions of learning reading with self-questioning?

2. Theoretical framework

2.1 Literature review

A variety of thorough definitions of reading have been put forth by researchers. Reading is thought of as a process in which readers use their language knowledge to decode information from a text (Artley, 1961; Bernhardt, 2010; Grabe, 2009). From the linguistic perspective, Artley (1961) articulated that reading is a sophisticated activity since the reader is getting information from the writer. Bernhardt (2010) defined reading as the process of simultaneously extracting meaning from written language and constructing it.

From the sociocultural perspective, Vygotsky (1978) stated that reading comprehension is influenced by socialization. Reading is seen as a social ability that demands learners to actively participate, interact, and be involved. Reading comprehension takes place through interaction with knowledgeable teachers (Elbaz, 1991) or peers (Palincsar, Brown, & Martin, 1987).

According to King (1989), self-questioning is a technique in which students are trained to generate comprehension questions while or after reading to demonstrate improvements in reading comprehension. Similarly, Taylor, Alber, and Walker (2002) defined self-questioning as a procedure that involves students pausing while reading to ask and answer their questions regarding the text. Berkeley et al. (2011) stated that self-questioning is a technique that encourages students to come up with their questions before, during, and after reading to evaluate their comprehension of the text. Self-questioning, as suggested by Joseph & Ross (2018), can activate past knowledge by bringing attention to relevant details and by offering clues for recall.

Wong (1985) argues that readers use self-questioning to monitor comprehension, and evaluate understanding. Self-questioning helps readers identify gaps in understanding and adjust their reading strategies accordingly. Self-questioning enhances comprehension and generates more and higher-level questions. It means that when readers ask themselves questions while reading, they are more likely to understand the content better.

2.2 Related studies on the effects of self-questioning on pre-intermediate EFL students' reading comprehension.

Wong (1985) conducted a review of 27 studies on self-questioning instructional strategies from 1965 to 1982. He found that the effectiveness of self-questioning depends on the type of questions asked, the timing and frequency of self-questioning, and the level of guidance provided by the teacher. Open-ended questions were more effective than closed-ended questions, and self-questioning was the most effective when done frequently and at appropriate times during the learning

process. Similarly, Rosenshine, et al. (1996) reviewed 26 intervention studies that investigated the impact of teaching students to generate their own questions. The article also highlights the importance of students being able to generate their own questions, rather than simply answering questions posed by the teacher. When students generate their own questions, they become more actively engaged in the learning process, and are more likely to retain and apply the information they have learned.

In addition to the effects of self-questioning on students' reading comprehension, some related studies on the relationship between reading comprehension and writing are mentioned. Kendeou et al. (2014) found that there is a reciprocal relationship between reading comprehension and writing. The study found that as students' reading comprehension skills improved, so did their writing skills, and vice versa. It suggests that the two skills support each other in a positive feedback loop, leading to the overall improvement in language proficiency. Moreover, research has shown that explicit teaching of reading comprehension strategies can enhance writing performance. A study by Graham and Harris (2017) found that teaching students specific strategies to improve their comprehension, such as summarizing, predicting and self-questioning, led to significant improvements in their writing quality. It highlights the importance of integrating reading comprehension instruction into writing instruction for optimal learning outcomes.

2.4 Related studies on the students' perceptions of learning reading with self-questioning.

One of the oldest and most thoroughly researched areas of psychology is perception. Efron (1969) explained that perception is the primary cognitive way people interact with their surroundings. Specifically, Eagly and Chaiken (1993) claimed that perception is a psychological propensity expressed by cognitive, affective, and behavioral responses. Eggen & Kauchak (2001) referred to perception as people's experience of seeing, hearing, becoming aware of, or understanding things around people through the use of senses. Connolly (2019) explained that students' perception reflects how students think about what they have done or about what they have learned. In addition, Kim et al. (2012) recommended that positive perception boosts students' motivation to learn foreign languages. The study offers students considerable opportunities to reflect on their reading by combining prior knowledge and evaluating texts. It assists students in gaining both cognitive and affective knowledge. Students' ability to articulate their thought and feelings about the topics in the text encourages them in learning English. Moreover, the findings will reveal how students feel about using self-questioning to improve their reading comprehension.

3. Research Methodology

3.1 Research design

This quasi-experimental study used a two-group pretest-posttest design to investigate the effects of self-questioning on student reading comprehension and their perceptions of learning reading with self-questioning. The experimental group, which received instruction through self-questioning, and the control group, which received teaching using teacher-posted questions, were each given a set of participants. Pre-test, post-test, and questionnaire data were gathered, and descriptive statistics, independent and paired sample t-tests were used for data analysis. The overall research design of the investigation is displayed in Table 1.

Table 1. Research design

Panel			
Group	Pre-test	Intervention	Post-test
EG (n= 34)	O1	Self-questioning	O2
CG(n= 34)	O1	Teacher-posed questions	O2

Note: EG = Experimental Group; CG = Control Group; O1 = pre-test; O2 = post-test

3.2 Participants

This study was conducted at Tra Vinh University. *The participants included 68 EFL second year students (aged from 19 to 20) who were supposed to have a similar level of English proficiency, pre-intermediate level because they had finished the second module of the General English subject and had been learning English as a foreign language for more than ten years.* Table 1 detailed the number of research participants in the study. In order to have the data for the study, pre-and-post tests for reading comprehension and writing, and a questionnaire consisting of 28 items were applied. The first part of the tests was to determine the effects of self-questioning on students' reading comprehension, which was measured using multiple-choice questions. The reading passages used in the pre-test and post-test were taken from Cambridge PET Practice Tests 6, which was published by Cambridge. The second part of the test involved writing a paragraph that was related to the reading passage. The purpose of this writing task was to measure how well students can activate their prior knowledge and understanding of the reading material using self-questioning. Students were given three prompts to help brainstorm ideas and prepare for their writing.

Table 2. Research participants

Research participants (n = 68)	Questionnaire		Intervention	
	EG	CG	EG	CG
	34	34	34	34

Note: EG: Experimental Group; CG: Control Group

3.3 Research instruments

In order to have the data for the study, pre-and-post tests for reading comprehension and writing, and a questionnaire consisting of 28 items were applied. The first part of the tests was to determine the effects of self-questioning on students' reading comprehension, which was measured using multiple-choice questions. The reading passages used in the pre-test and post-test were taken from Cambridge PET Practice Tests 6, which was published by Cambridge. The second part of the test involved writing a paragraph that was related to the reading passage. The purpose of this writing task was to measure how well students can activate their prior knowledge and understanding of the reading material using self-questioning. Students were given three prompts to help brainstorm ideas and prepare for their writing.

For both control and experimental groups, the pre-and-post tests results were being examined, evaluated and independently scored by two teachers in two weeks. There are 10 questions in two reading sections and each correct answer is worth 1 point. Then, the writing was assessed by analytic marking scale which was adapted from Common European Framework Reference (CEFR). The scale included two aspects to be assessed namely content and organization. On the ten-point scale, content aspect accounted for 5 points and organization made up 5 points.

The questionnaire aimed to investigate the students' perception of using self-questioning to their reading comprehension. It included three categories: students' self-assessment of their effectiveness in reading comprehension, in writing related to the passages, and students' preference in learning to read. The questionnaire was based on the seven-point Likert-scale, ranging from Strongly

disagree (1), Disagree (2), Disagree somewhat (3), undecided (4), Agree somewhat (5), Agree (6), Strongly agree (7).

3.4 Research procedures

A quasi-experimental design was used to conduct this research on the experimental and control groups. The participants took eight weeks to train with self-questioning, and the study included three stages. Before the intervention period begins, all participants received an orientation addressing topics such as how question generation affects students’ reading comprehension, the goal of the pre-and post-tests, and the teacher’s expectations. Additionally, meeting two was used to administer the pre-test and pre-questionnaire. The pre-test lasted for 60 minutes for each group.

The intervention phase (six meetings) came next. At this moment, the experimental group’s participants learned to read by self-questioning, whereas the control group’s participants practiced summarizing. Every meeting lasts 110 minutes, and both groups use identical reading materials.

3.5 Data processing method

The authors employed the SPSS 28 to analyze the responses. The data were collected at two moments: at the beginning (pretest and pre-questionnaire) and the end (post-test and post-questionnaire) of the intervention.

4. Findings and discussion

4.1 Findings

4.1.1 What are the effects of self-questioning on pre-intermediate EFL students’ reading comprehension?

The Descriptive Statistics Test and the Independent Sample *t*-test were used to measure how well the participants in the two groups wrote. The results are presented in Table 3.

Table 3. Independent samples *t*-test of writing performance on the pre-test in two groups

	Mean (S.D)		Two-sided p
	Self-questioning	Teacher-posed questions	
Content	3.1324 (.43185)	3.2059 (.65271)	.586
Organization	2.8824 (.71836)	3.0588 (.72577)	.317

Table 3 provides descriptive statistical data about passage-related writing regarding the content and organization of the reading passages of the pre-test. First, for the content, the mean score for the experimental and control groups was 3.1324 and 3.2059, respectively, and the high *p*-value (*p*=0.586) demonstrated that there were no statistically significant differences between these numbers. Second, with organization, the experimental group’s mean score was 2.8824, whereas the control group’s was 3.0588. However, the high *p*-value (*p*=0.317) suggested that there were no statistically significant differences between these figures. Therefore, before the intervention, students in two groups shared the same levels of content and organization.

Table 4. Independent Samples *t*-test of writing performance on the post-test in two groups

	Mean (S.D)		<i>p</i> -value	Effect size
	Self-questioning	Teacher-posed questions		
Content	4.2500 (.51124)	3.5441 (.60762)	<.001	.56150
Organization	4.0294 (.53571)	3.5147 (.54335)	<.001	.53955

Table 4 demonstrates the results of descriptive statistics of the students' writing comprehension performance on the post-test in the experimental and control groups. For the content, the mean score of the experimental group (4.2500) was higher than the control group's (3.5441). The small p-value stated that these numbers had statistically significant differences ($p < 0.001$). This significance was practical (Cohen's $d = .56150$). For the organization, the experimental group's mean score was 4.0294, while the control group's was 3.5147. However, the high p-value ($p < 0.001$) indicated that there were statistically significant differences between these numbers. With a Cohen's $d = .53955$, there was practical significance of the finding that the experimental intervention be more successful than the control intervention. To sum up, after the intervention, although students in two groups were better at content and organization when writing, the experimental group had more content than the control group. However, the mean score of each group was explored using Paired samples t -test to provide more specific information.

Table 5. Paired Samples t -test of the pre-test and post-test scores of the experimental group

	Pre test Mean (S.D)	Posttest Mean (S.D)	Mean Difference (S.D)	p -value
Content	3.1324 (.43185)	4.2500 (.51124)	-1.11765 (.61618)	<.001
Organization	2.8824 (.71836)	4.0294 (.53571)	-1.14706 (.70205)	<.001

Table 5 displays the differences between the experimental group's mean scores before and after the intervention. First, in terms of content, the mean score of the experimental rose from 3.1324 to 4.2500, and the small p-value ($p < .001$) indicated that these numbers had statistically significant differences. Second, with organization, in comparison to the pretest, the mean score increased from 2.8824 to 4.0294 in the posttest. Furthermore, the small p-value ($p < .001$) showed that there were statistically significant differences between these numbers. After the intervention, there were differences in the content and organizational levels of the students in the experimental group. It consequently demonstrated a positive increase in the experimental group. The experimental group's students' writing had got better at content and organization.

Table 6. Paired Samples t -Test of the pre-test and post-test scores of the control group

	Pre test Mean (S.D)	Posttest Mean (S.D)	Mean Difference (S.D)	Two-sided p
Content	3.2059 (.65271)	3.5441 (.60762)	-.33824 (.83231)	<.024
Organization	3.0588 (.72577)	3.5147 (.54335)	-.45588 (.66706)	<.001

Table 6 illustrates descriptive statistics of the students' writing comprehension performance on the post-test in the control group. First, in terms of content, the mean score of the control group was 3.2059 in the pretest. This figure, though, climbed to 3.5441 in the posttest. The small p-value ($p = .024$) indicated that these numbers had no statistically significant differences. Second, the post tests' mean score witnessed a climb from 3.0588 to 3.5147 regarding the organization of students' text. In addition, the small p-value ($p < .001$) indicated that there were statistically significant differences between these numbers. Overall, the control group, therefore, displayed a rising trend. Especially, the level of organization of students in the control group differed, while the level of content were similar after the intervention.

Summary of the mean scores of passage-related writing for two groups before and after the study.

Table 7. The mean score of content for two groups before and after the intervention

Group	Content	
	<i>Pre-test</i>	<i>Post-test</i>
Experimental	3.13	4.25
Control	3.21	3.54

Table 7 describes the mean score of content in the participants’ texts for two groups before and after the intervention. There was a statistically significant difference in the mean score of the post-test between the two groups, with the experimental group performing writing at a higher level than the control group. After the intervention, it went from 3.21 to 3.54 in the teacher-posed question group, while participants in the self-questioning group also experienced a significant increase from 3.13 to 4.25. It was concluded that self-questioning outperformed the teacher-posed questions.

Table 8. The mean score of organization for two groups before and after the intervention

Group	Organization	
	<i>Pre-test</i>	<i>Post-test</i>
Experimental	2.88	4.03
Control	3.06	3.51

The mean score for text organization for the two groups before and after the intervention is provided in Table 8.

Between the two groups, there was a statistically significant difference in the mean organization score, with the experimental group performing text organization at a higher level than the control group. Following the intervention, it increased significantly in both the teacher-posed question group (from 3.06 to 3.51) and the self-questioning group (from 2.88 to 4.03). It was determined that students in self-questioning group organized their text better than students in teacher-posed question group. In conclusion, although both groups made progress in their writing, the experimental group’s writing about their reading was better than the control group’s in terms of content and organization.

4.1.2 What are EFL students’ perceptions of learning reading with self-questioning?

The reliability statistics test of pre and post questionnaires of the 28 items about the participants’ perception to their reading comprehension is illustrated in Table 9.

Table 9. The reliability statistics of pre-questionnaire and post-questionnaire

	N of Participants	Cronbach's Alpha	N of Items
Pre-questionnaire	68	.905	28
Post-questionnaire	68	.885	28

Cronbach’s alpha of the pre-questionnaire reached 0.905 and the post-questionnaire was 0.885, which were reliable enough for use and for further analysis.

Comparison of the mean scores of the participants’ perception to their reading comprehension between two groups at the pre-questionnaire and post-questionnaire.

Table 10. Independent Samples t-Test of participants’ perception to their reading comprehension on the pre-questionnaire in two groups

Group	Stage	Mean	Std. Deviation	Two-sided p
EG	Pre-Q	3.9611	.44548	<.104
CG		4.1334	.32501	
EG	Post-Q	5.3298	.34933	<.001
CG		4.6933	.58263	

Table 10 displays the results of using Independent samples T-test to compare participants’ perception to their reading comprehension before and after the intervention. First, the control group’s pre-questionnaire had a mean score of 4.1334, compared to the experimental group’s 3.9611. Moreover, there were statistically considerable differences in mean scores among the two groups

[$p < .001$]. The two groups' perceptions of their reading development before the intervention could, therefore, be inferred to be similar.

In contrast to the pre-questionnaire, the results of Table 10 demonstrates that the total mean score of the experimental group in post-questionnaire was higher than the control group, at 5.3298 and 4.6933, respectively. Specifically, the small p -value [$p < 0.01$] illustrates that there was statistically remarkable changes after the intervention.

Comparison of the mean scores from the pre-questionnaire to the post-questionnaire of the experimental and control groups.

Table 11. Paired Samples t -Test of the pre-questionnaire and post-questionnaire scores of the experimental group

Group	Stage	Mean	Std. Deviation	Two-sided p
EG	Pre-Q	3.9611	.44548	<.001
	Post-Q	5.3298	.34933	
CG	Pre-Q	4.1334	.32501	<.001
	Post-Q	4.6933	.58263	

Paired Samples T -test was applied in order to investigate any differences between each group before and after the intervention, and the outcomes are shown in Table 11. First, when comparing the experimental group, the mean score rose from 3.9611 to 5.3298, and the two-sided significant level was less than .001. Similar to this, participants in the control group also saw an increase in their mean scores from the pre- to post-questionnaires of 0.55987 (4.1334 and 4.6933, respectively), with a two-sided significant level of less than .001. The findings showed that both groups' perception of their reading comprehension between the pre- and post-questionnaires differed significantly. As a result, both the experimental and control groups members' perceptions to their reading comprehension improved following the intervention.

Comparison of the mean score of three categories of self-questioning group from the pre-questionnaire to post-questionnaire.

Table 12. Paired samples t -test of participants' perception to each category from the pre-questionnaire to the post-questionnaire in self-questioning group

	Mean (S.D)		p -value
	Pre-Questionnaire	Post-Questionnaire	
Students' self-assessment of their Effectiveness in reading comprehension	3.9305 (.45512)	4.6925 (.80788)	<.016
Students' self-assessment of their effectiveness in passage-related writing	3.8088 (.45074)	5.0992 (.20676)	<.001
Students' preference in learning to read	4.1340 (.41830)	5.5915 (.37851)	<.001

The results of the Paired Samples T -test on how participants perceived each category of the post-questionnaire for the self-questioning presented in Table 12. In general, all categories had dramatic difference before and after applying self-questioning. First, students in the self-questioning group evaluated the effectiveness in reading comprehension as being higher than it had been at the start of the course ($M_{pre-Q}=3.9305 < M_{post-Q}=4.6925$). The outcome of paired samples t -test indicated that this difference was statistically significant [$t(10)=-2.887; p=0.016$]. Second, they also perceived the effectiveness in writing related to the passages better after the course ($M_{pre-Q}=3.8088 < M_{post-Q}=5.0992$). Moreover, this difference was shown to be statistically remarkable by the small p -value [$p < .001$]. Finally, students preferred to continue learning with self-questioning ($M_{pre-Q}=4.1340 < M_{post-Q}=5.5915$) with the small p -value [$p < .001$].

Comparison of the mean score of three categories of teacher-posed question group from the pre-questionnaire to post-questionnaire.

Table 13. Paired samples t-test of participants’ perception to each category from the pre-questionnaire to the post-questionnaire in teacher-posed question group

	Mean (S.D)		p-value
	Pre-Questionnaire	Post-Questionnaire	
Students’ self-assessment of their effectiveness in reading comprehension	4.1685 (.40564)	4.8529 (.42824)	<.001
Students’ self-assessment of their effectiveness in passage-related writing	4.0882 (.35084)	4.1691 (.42092)	.648
Students’ preference in learning to read	4.1307 (.19846)	4.5033 (.54322)	.125

Table 13 contains the findings of the Paired Samples T-test on how participants perceived each post-questionnaire category for the teacher-posed question group. Only the students' assessments of their reading comprehension abilities showed a significant change between before and after using the questions posed by teachers. Students who responded to the teacher's questions thought that the effectiveness of reading comprehension had grown more than at the beginning of the course. (Mpre-Q=4.1685 < Mpost-Q=4.8529). This difference, according to the results of the paired sample t-test, was statistically significant [p=.001]. However, there were no statistically considerable variations in how well students thought they wrote about passages on their own [p=.648]. Finally, students' preferences for learning to read did not alter significantly after the course [p=.125] with the high p-value.

Table 14. The participants’ perception to their reading comprehension in the experimental and control groups before and after the intervention

Group	Participants’ perception	
Experimental	4.13	5.33
Control	4.23	4.69

Table 14 depicts how participants in the experimental and control groups perceived their reading comprehension before and after the intervention. First, at the start of the intervention, there was a statistically remarkable difference in the mean score between the experimental and control group. Specifically, the experimental group underachieved the control group. The experimental group started at 3.96 on the pre-questionnaire, whereas the control group scored 4.13. The perception of the participants increased in both groups for the subsequent six weeks, though. Additionally, the mean score of the experimental group climbed up to 5.3298, compared to the control group’s mean score, which was 4.6933. In conclusion, the above results demonstrated that the participants in the experimental and control groups had positive perceptions of their reading comprehension. However, the participants in the experimental were higher than their peers in the control group.

4.2 Discussion

4.2.1 The effects of self-questioning on pre-intermediate EFL students’ reading comprehension

The results of the current study demonstrated that self-questioning improved reading comprehension with a high level of significance. The findings validated Wong’s (1985) claim that self-questioning aided students in recognizing ideas and enhanced their local comprehension. Although Singer (1978) discovered that teacher-posed questions may have helped readers organize information at the passage level rather than at the specific information level, the current study investigated that the self-questioning group received higher scores of local comprehension than the teacher-posed group. In other words, self-questioning was more effective than teacher-posed questions in helping students locate details.

Additionally, the findings of the present study were in line with the previous ones showing that self-questioning required students synthesize various ideas and analyze information (Davey & McBride 1986; Khansir & Dashti, 2014; King, 1989).

The present study also investigated that students could write more content related to reading and organize their work. It matched Nguyen et al. (2016)'s results that students performed more accurately when asked to write responses. Nguyen et al. (2016) and the current study found that students wrote lengthier paragraphs. Students in the self-questioning group utilized more adjectives to convey their emotions in their writing. According to Pressley and Afflerbach (1995), using self-questioning prompts can call past knowledge and highlight comprehension gaps that can be filled by additional reading or a discussion.

4.2.2 The EFL students' perceptions of learning reading with self-questioning

Students' perception of self-questioning to learn reading comprehension changed after the intervention, despite similar perceptions at the beginning of the course. Students agreed that their reading comprehension and writing on the reading passage improved. Additionally, they preferred reading with self-questioning to reading with questions from the teacher. This research lent credence to the active theory, which emphasized the efficacy of self-questioning on reading comprehension. According to this theory, students became active in learning through self-questioning (Wong, 1985). These results of the current study were also from the nature of the self-questioning strategy, which caught students' attention and stimulated their interest in reading. Therefore, self-questioning motivated students to generate a variety of high-quality questions. As a result, students better achieved reading comprehension. The findings confirmed that self-questioning had a more positive perception than teacher-posed questions. The outcomes corresponded with those reported by Nguyen et al. (2016).

5. Conclusions and recommendations

The current study attempted to reach two objectives. The first objective is to investigate the effects of self-questioning on pre-intermediate EFL students' reading comprehension. The second one is to explore their perceptions of learning to read with self-questioning. For the effects of self-questioning, both experimental and control groups had significantly increased on students' reading comprehension. However, the experimental group performed better than the control group. While both groups improved their writing related to content and organization, the experimental group's work was superior to that of the control group. For the students' perceptions to learning reading with self-questioning, there were statistically significant differences in the students' perceptions of learning reading before and after the intervention. The participants in the experimental group had more positive perception of self-questioning than their peers in the control group. These results have brought invaluable information to both EFL learners of English and EFL teachers.

However, the study has some limitations. First, the current study was limited by a small sample size and sampling method. There were only 68 students at Tra Vinh University participating in this study. Second, due to time constraint, the researchers were not able to make the face-to-face interviews to provide the study with a deeper understanding of the participants' perceptions.

Considering the limitations of this study, it is recommended that further research be undertaken with a larger sample size and a better sampling method, and in depth-comparison including self-questioning, summarizing, and control groups. In addition, future researchers should lengthen the time frame of their study and combine both quantitative and qualitative approaches.

References

Artley, S. (1961). *What is reading: A report on elementary education*. Chicago: Scott Foresman.

- Berkeley, S., Marshak, L., Mastropieri, M.A., & Scruggs, T.E. (2011). Improving student comprehension of social studies text: A self-questioning strategy for inclusive middle school classes. *Remedial and Special Education, 32*(2), 105-113.
- Bernhardt, E. (2010). *Understanding advanced second-language reading*. New York: Routledge.
- Connolly, K. (2019). *Perceptual learning: The flexibility of the senses*. New York, NY: Oxford University Press.
- Correia, R. (2006). Encouraging critical reading in the EFL classroom. *English Teaching Forum., 44*(1), 16-20.
- Daniel, J., & Williams, K.J. (2021). Self-questioning strategy for struggling readers: A synthesis. *Remedial and Special Education, 42*(4), 248-261.
- Davey, B., & McBride, S. (1986). Effects of question-generation training on reading comprehension. *Journal of Educational Psychology, 78*(4), 256–262. <https://doi.org/10.1037/0022-0663.78.4.256>.
- Eagly, A.H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich.
- Efron, R. (1969). *What is perception?*. Dordrecht: Springer.
- Eggen, P., & Kauchak, D. (2001). *Educational psychology: Windows on classrooms*. Upper Saddle, River, NJ: Merrill Prentice-Hall.
- Elbaz, F. (1991). Teachers' curricular knowledge in fourth grade: The interaction of teachers, children and texts. *Curriculum Inquiry, 21*(3), 299-320.
- Elley, W.B., & Mangubhai, F. (1983). The impact of reading on second language learning. *Reading Research Quarterly, 53*-67.
- Freire, P. (1983). The importance of the act of reading. *Journal of Education, 165*(1), 5-11.
- Graham, S., & Harris, K.R. (2017). Reading and writing connections: How writing can build better readers (and vice versa). *Improving reading and reading engagement in the 21st century: International research and innovation, 333*-350.
- Grabe, W. (2009). *Reading in a Second Language*. New York: Cambridge University Press.
- Joseph, L.M., Alber-Morgan, S.R., Cullen, J.M., & Rouse, C.A. (2016). The effects of self - questioning on reading comprehension: A literature review. *Reading & Writing Quarterly, 32*, 152-173.
- Joseph, L.M., & Ross, K.M. (2018). Teaching middle school students with learning disabilities to comprehend text using self-questioning. *Intervention in School and Clinic, 53*(5), 276-282.
- Kendeou, P., Van Den Broek, P., Helder, A., & Karlsson, J. (2014). A cognitive view of reading comprehension: Implications for reading difficulties. *Learning disabilities research & practice, 29*(1), 10-16.
- Kim, K., Oh, I.S., Chiaburu, D.S., & Brown, K.G. (2012). Does positive perception of oneself boost learning motivation and performance? *International Journal of Selection and Assessment, 20*(3), 257-271.
- King, A. (1989). Effects of self-questioning training on college students' comprehension of lectures. *Contemporary Educational Psychology, 14*(4), 366-381.
- Khansir, A.A., & Dashti, J.G. (2014). The effect of question-generation strategy on Iranian EFL learners' reading comprehension development. *English Language Teaching, 7*(4), 38-45.
- Krashen, S.D., & Terrell, T. (1983). *Natural approach*. New York, UK: Pergamon.
- Mueller, D.L. (1973). Teacher attitudes toward reading. *Journal of Reading, 17*(3), 202-205.
- Nguyen, P.N.T., Janssen, T., Rijlaarsdam, G., & Admiraal, W. (2016). Effects of self-questioning on EFL students' engagement in literary reading. *Cultura y Educación, 28*(4), 702-737. doi:10.1080/11356405.2016.1231759.
- Nguyen, P.N.T. (2022). Let's inter think for the new one! Literacy reading in precomposition for second language learners: Dialogue with the self and with peers. In Janssen, T. (Ed.). *Literatuur Leren Lezen in dialoog* (pp.63-76). Amsterdam: Amsterdam University Press.

- Palincsar, A.S., Brown, A.L., & Martin, S.M. (1987). Peer interaction in reading comprehension instruction. *Educational Psychologist*, 22(3-4), 231-253.
- Pressley, M., & Afflerbach, P. (1995). *Verbal protocols of reading: The nature of constructively responsive reading*. Hillsdale, NJ: Lawrence Erlbaum.
- Singer, H. (1978). Active comprehension: From answering to asking questions. *International Literacy Journal*, 31(8), 901-908.
- Singer, H., & Donlan, D. (1982). Active comprehension: Problem-solving schema with question generation for comprehension of complex short stories. *Reading Research Quarterly*, 17(2), 166. doi: 10.2307/747482.
- Rosenshine, B., Meister, C., & Chapman, S. (1996). Teaching students to generate questions: A review of the intervention studies. *Review of educational research*, 66(2), 181-221.
- Taylor, L.K., Alber, S.R., & Walker, D.W. (2002). The comparative effects of a modified self-questioning strategy and story mapping on the reading comprehension of elementary students with learning disabilities. *Journal of Behavioral Education*, 11(2), 69-87.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wong, B.Y.L. (1985). Self-questioning instructional research: A review. *American Educational Research Journal*, 55(2), 227-268.

NGHIÊN CỨU TÁC ĐỘNG CỦA VIỆC TỰ ĐẶT CÂU HỎI VÀ NHẬN THỨC ĐỐI VỚI KHẢ NĂNG ĐỌC HIỂU CỦA SINH VIÊN NGÔN NGỮ ANH Ở BẬC ĐẠI HỌC

Tóm tắt: Nghiên cứu này nhằm xác định tác động của việc tự đặt câu hỏi đến khả năng đọc hiểu của sinh viên học tiếng Anh như một ngoại ngữ- trình độ tiền trung cấp và khám phá nhận thức của các em về việc học đọc hiểu bằng cách tự đặt câu hỏi. Một thiết kế bán thực nghiệm đã được thực hiện giữa hai nhóm gồm 68 sinh viên Việt Nam trình độ tiền trung cấp trong lớp học đọc hiểu kéo dài chín tuần bằng cách sử dụng các câu hỏi tự đặt và do giáo viên đặt ra. Công cụ nghiên cứu được sử dụng là các bài kiểm tra trước và sau về đọc hiểu, viết và một bảng câu hỏi gồm 28 câu. Kết quả nghiên cứu cho thấy việc tự đặt câu hỏi có tác động tích cực đến khả năng đọc hiểu. Số liệu từ bài kiểm tra trước và sau cho thấy có sự khác biệt đáng kể giữa nhóm tự đặt câu hỏi và nhóm câu hỏi do giáo viên đặt ra đối với khả năng đọc hiểu, đặc biệt là hiểu về địa phương, và viết liên quan đến đoạn đọc. Dữ liệu từ bảng câu hỏi cũng cho thấy sinh viên có nhận thức tích cực về việc học bằng cách tự đặt câu hỏi. Nghiên cứu đề xuất rằng việc tự đặt câu hỏi nên được sử dụng để cải thiện khả năng đọc hiểu của sinh viên học tiếng Anh như một ngoại ngữ- trình độ tiền trung cấp.

Từ khóa: Tự đặt câu hỏi, đọc hiểu, nhận thức tích cực, tiền trung cấp, sinh viên học tiếng Anh như một ngoại ngữ