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### Second language writing and literary reading in university: three empirical studies

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# EFFECTS OF SELF-QUESTIONING ON STUDENTS' ENGAGEMENT IN LITERARY READING

## Abstract

Two self-questioning interventions were set up to increase students' cognitive and affective engagement in literary reading. These interventions featured (1) students generating and formulating questions while reading individually and then exploring their questions in small-group discussions, and (2) students generating and formulating questions while reading individually and then reflecting individually through a free-writing activity. A pre-test post-test control group design with switching replications was set up with these two experimental conditions and a regular condition in which the teacher generated the questions and led the discussion on the questions. Participants were 59 EFL Vietnamese undergraduate students in a university in Mekong, Vietnam. On five measurement occasions student engagement was measured by (1) a written response to a work of fiction and (2) an inventory of perceived engagement. Results showed that both experimental interventions positively influenced students' engagement in reading literary fiction, compared to the regular course pattern with questions provided by the teacher. The maintenance of the intervention effects was also observed. No different effect was shown between the two experimental conditions. An implication of the findings is that a literary reading classroom with students' self-generation of questions combined with reflective discussions or free writing positively promote the cognitive and affective reading engagement, especially in the initially low-engaged readers.

Key words: self-questioning; foreign language; literary reading; literature engagement; self-perceived engagement.

## 1. INTRODUCTION

Literacy educators emphasize the central role of fostering engagement with reading in the classrooms for students' literacy achievement (Meiers, 2004). Engaged readers are defined as possessing desires to learn and using their best strategies for understanding and interpreting reading texts to enhance that learning (Guthrie, Alao, & Rinehart, 1997). Students who are disengaged in reading simply read the information on a surface level over and over again for their literacy tasks (Entwistle & Ramsden, 1983; Guthrie et al., 1997). Classroom instructions might trigger engagement in reading, but how this can be empirically tested is largely unknown. In this paper, we test two student-centered classroom instructions, in addition to a regular course pattern with text and questions provided by the teacher.

### *1.1 Native and foreign literary reading*

Research has classified two types of literary (fiction) reading in school: Text-based processing and reader-based processing. *Reader-based processing* means that reading begins with the reader making hypotheses about the author's intentions. Readers read to verify or refute their hypothesis and do so by selecting words or passages to validate their thoughts (McCoy, 2007). *Text-based processing* explicitly focusses

on linguistic complexity of a text and text structures, for example, settings, characters, conflicts, and an end for stories or cause-effect or problem-solution for expository texts (McCormack & Pasquarelli, 2010; McCoy, 2007). As students become more proficient with the relative low-level strategies of text-based processing, most will advance to the level of figuring out meanings. If classroom contexts give them an opportunity they will move back and forth between the high- and low level reading strategies (McCoy, 2007, p. 183).

### *1.2 Text-based processing in Vietnamese literary reading*

In Vietnam, literary reading is a compulsory subject in secondary education in the public school system, from Grade 6 to Grade 12. In these classes, students read Vietnamese authors and foreign ones such as *“The Magic Brush”* by a Chinese author, *“The Tale of the Fisherman and the Fish”* by a Russian author, extracts of *“Don Quixote”* from Spain, *“The Little Match Girl”* from Denmark, and *“The Last Leaf”* of North-American origin, Shakespeare drama, etc., all translated into Vietnamese. However, Vietnamese literary works take about 80% of the program, with a larger portion of prose than poetry. Students throughout the whole country, for each grade, use the same course-book in the public system. The major aim is that students master the central themes of the major literary works, the Vietnamese canon. In classroom, students read a short story individually, accompanied by the guiding questions for the story provided in the course-book. Then the teacher leads the whole-class discussion towards answering these guiding questions to explore the theme of the story. Testing consists of questions about the background of the author, the story line, and a writing task in which students write around 250-300 words analyzing the central theme of the story. Assessment of the writing task is based on students’ expression of the *“right”* theme and sufficient and appropriate evidence in the story. Most of this information is provided in the classroom discussion before the test and learning is, therefore, reproductive.

### *1.3 Text-based processing reading in foreign literary reading*

When Vietnamese students graduated from the secondary system and they chose English as a foreign language (EFL) four-year training course in undergraduate level, they must take an English literary reading course at the end (year 4) of the study in most universities. At this level of proficiency in English, students are assumed to be proficient enough to understand short fictional texts written in English. The teaching approach is teachers posing questions embedded in the texts about characters, theme and teachers leading the classroom discussion to answer the questions.

Teachers feel that many students in the foreign literary reading context show a notable lack of comprehension in foreign language literary reading.

*“Students read but did not understand; most read and understood parts- not all. In brief, they mostly stop at the surface, not the deep meanings of the [literary] work.”*

This is a comment of a teacher who has taught EFL in higher education in Vietnam for 20 years and an EFL literary introduction course for the recent 3 years (from the

interview material of the current study). The students she refers to are undergraduate EFL students who are sufficiently proficient in English language to read the stories listed in their program. From the students' side, the common question to their teacher is "Why don't you tell me what I should grasp, what the main contents of the story [L2 story] are?" This attitude reflects the present status of foreign-language literary reading at the university level. Vietnamese students prefer to receive a "right" answer from the teacher as well as show a resistance to invest into exploring deeper layers of literary texts, like students in other places (Janssen, Braaksma, & Couzijn, 2009). Testing consists of questions about basic characteristics of a story, such as time, place setting of the story, intentions of characters, etc. and a writing task in which students write around 250-300 words responding to the story they read. For example, to the story "In Another Country" of Hemingway, students are required to "write a short essay in which you [students] illustrate the sense of isolation or loneliness which life in modern urban society can bring." (Le, 2007, p. 146). The task seems to be more reader-based, not only task-based, but the present teaching that fosters many text-based comprehension questions does not facilitate effectively the students to complete the writing task. Or students must interpret the global theme of the story, stating what they learned from the story, producing the "moral" which is not only typical in Vietnamese literary education, but also in foreign-language literary reading. Assessment of the writing task refers to the quality of students' interpretation of the story, whether it is more or less valid and reasonable, and taking language use and language expression into consideration.

We assume, at this level of reading and life experience of students, an approach encouraging *reader-based* processing in foreign language literary reading might be more interesting, challenging and fostering cognitive and affective engagement of the readers. Learning to generate questions ("self-questioning") might be a good way to put reader-based processing into practice.

#### 1.4 Self-questioning in literary reading classroom

Three theories underlying the integration of students' self-questioning as a reader engagement strategy in the literature classroom are *narrative understanding*, *problem finding*, and *reader response* (Janssen, 2002). In narrative understanding theory, a fundamental component of narrative understanding is that readers ask themselves questions, both as inner speech or "self-talk" or as thinking aloud (Graesser, Singer, & Trabasso, 1994; Olson, Duffy, & Mack, 1985; Trabasso, Van den Broek, & Liu, 1988). The theory of *problem finding* focuses on reading literary texts as *problem-finding* rather than *problem-solving* processes. As in literary texts, the problem itself is unknown, ill-defined, and pleasurable to be sought and therefore, involves discovering, envisaging, and delving into deeper questions (Schraw, Dunkle, & Bendixen, 1995). *Reader response theory* suggests that reading is a "transaction" process between readers and text (Rosenblatt, 1978). In the process, readers' genuine, knowledge-seeking questions will promote their engagement, which in turn leads to higher levels of response to literature (Nystrand & Gamoran, 1991). In essence, stu-

dents generating questions while reading to create sense is the basis of all the three theories.

There are different approaches to engaging students in literary reading through intentional application of self-questioning strategies reported: the approach of story-grammar based self-questioning (Singer & Donlan, 1982) and of self-questioning towards dialogical-thinking reading discussion (Commeyras & Sumner, 1998). The studies that investigated the effect of implementing these approaches report positive results on students' investment in digging for full comprehension of the stories or for meaningful discussions about the stories. In the study of Singer and Donlan (1982), in accordance with the theory of *narrative understanding*, students were taught explicitly the characteristics of a grammar of a story with a plan, a goal, actions, obstacles, and outcomes that represent success or failure. They provided students with general text-based questions about common characteristics of a story such as "Who is the leading character?", "What is the leading character trying to accomplish in the story?" and students were taught to use the general questions to generate questions more specific to the story they read. They found students generated the adjacent story-specific questions (e.g., "Is this story going to be more about the officer or the barber?") in accompany to the schema-general question "who is the leading character?" Students who formulated story-specific questions based on their knowledge of general schema questions showed a better awareness of the story characteristics than students who read to answer the schema questions posed by the teacher.

Commeyras and Sumner (1998), connected to the theory of *reader response*, investigated what process enabled the transfer of responsibility from teacher to students for creating a meaningful and interesting dialogical discussion towards a short story for second-grade students. They asked students to think of open-ended questions for a story and bring up the questions for group discussions. They found that giving students opportunities to think of questions for discussion, instead of answering teacher questions, created an active group discussion of questions around a story. Students' questions were reported as leading to critical thinking and problem solving because they were authentic, for example, students asked "Why did the girl throw the doll in the fire?", compared to the teacher's question "Did the story character do the right thing?". Students were also eager to pose questions, created numerous and varied questions, as well as willingly participated in discussing questions presented in groups. But although the questions and discussions changed, effect on comprehension was not examined in the study.

In line with the two above studies, Janssen et al. (2009) showed that Grade 10 students who were stimulated to generate questions reported a higher level of appreciation of the story they read than students who read with questions provided by teachers. Both conditions discussed the questions in groups. These authors also reported different effects of the two experimental interventions: guided and unguided self-questioning. Unguided self-questioning means that students were completely responsible for generating questions to bring up to discussions; whereas guided self-questioning means that students received additional modeling of good and weak questions. Students from the unguided self-questioning groups showed better quality of interpretation than students who did receive the good and weak examples of ques-

tions. In sum, self-questioning instructions seem to be effective to engage students in reading literary texts. However, a self-questioning classroom should foster students' authenticity and respect their spontaneous responses in making questions, rather than telling students what a good/bad question is or having judgment on their questions.

## 2. RESEARCH QUESTIONS

To facilitate student engagement in reading fiction texts, we designed a literary fiction reading intervention. Self-generation of questions and exploring the questions with peers or individually formed the principal components of the intervention.

We assume students exchanging questions and sharing their thoughts with their peers will increase literary engagement (see discussions of Health, 1991; Guthrie et al., 1997, on students' raising questions that they are excited at, discussing the question and the increase of engaged reading). Janssen et al., (2009) reported a higher level of appreciation of literature in the students who generated questions and explored the questions through discussing with peers. Students were assumed to read deeply when they knew that they would share their questions in a group discussion (Guthrie, 2004). Discussing questions with peers might contribute to the authenticity of the self-generation of question in a self-questioning classroom: questions asked and addressed

An alternative to discussion of questions that we examine in the study is self-generation of questions and exploring the questions with expressive free writing. We refer to the concept of useful function of expressive free writing as an explorative tool to activate knowledge embedded in each individual (Elbow, 1973). Research on writing revealed that writing did not only function as a way of communication but also as a tool for acquiring content knowledge, developing understanding, and improving thinking skills in a broad range of content subject from science to literature and at various educational levels (Rijlaarsdam et al., 2011). Different mechanisms in writing processes were assumed to stimulate thinking (Klein, 1999). One of these is called *Spontaneous Text Production*, which means that in the process of expressive writing writers spontaneously make their tacit knowledge explicit. This is what free-writing activities in education aim at.

With the two alternatives of self-questioning classroom (self-questioning supported by group discussion versus by free writing), we are seeking to address the basic question whether students do engage more deeply in fiction reading with self-questioning while reading than with teacher-posed questions.

Our research questions are:

*“Does reading with self-questioning (SQ), compared to regular reading with teacher-posed questions (TQ), influence student engagement in literary reading positively?”*

*“Do the two approaches of self-questioning, one supported by discussion (SQ<sup>D</sup>) and one by free writing (SQ<sup>F</sup>), result in different effects on reading engagement?”*

In connection to a study of Janssen et al (2009) in which student-readers' variation like reading experience was found influencing their scores of quality of reading interpretation, we come to the third question.

*“Does the self-questioning approach produce different effects on students with different initial level of engagement with literary reading?”*

### 3. METHOD

#### 3.1 Research design

A pre-test post-test control group design with switching replications (Shadish, Cook, & Campbell, 2002), was implemented to examine the effects of self-questioning on student engagement (see Table 1). A nested design was implemented to test the effects of the two versions of the experimental intervention.

*Table 1. Research design*

Group	Panel 1				Panel 2				
	T1	Panel-1a	T2	Panel-1b	T3	Panel-2a	T4	Panel-2b	T5
ST1	O <sub>1</sub>	SQ <sub>1</sub>	O <sub>2</sub>	SQ <sub>2</sub>	O <sub>3</sub>	TQ	O <sub>4</sub>	TQ	O <sub>5</sub>
ST2	O <sub>1</sub>	SQ <sub>2</sub>	O <sub>2</sub>	SQ <sub>1</sub>	O <sub>3</sub>	TQ	O <sub>4</sub>	TQ	O <sub>5</sub>
TS	O <sub>1</sub>	TQ	O <sub>2</sub>	TQ	O <sub>3</sub>	SQ <sub>1</sub>	O <sub>4</sub>	SQ <sub>2</sub>	O <sub>5</sub>

Note. SQ<sub>1</sub> = Self-questioning condition with group discussion; SQ<sub>2</sub> = Self-questioning condition with free writing; TQ = Teacher-posed question condition; ST = SQ in panel 1 and TQ in panel 2; TS = TQ in panel 1 and SQ in panel 2; O = measurement (1 to 5)

Instead of an untreated control condition in which the effect of the intervention found in the experimental group might be attributed to the lack of an intervention operation in the control condition, we implemented a regular reading course with teacher-posed questions for the control condition, using exactly the same literary texts. All students participated in both the intervention and conventional courses, albeit in a different sequence.

Panel 1 (T1-T3) was used to test the difference between the two self-questioning conditions and the teacher-posed question condition. Panel 2 (T3-T5) allowed us to replicate this. Panel 1a (T1-T2) was used to test the difference between the two self-questioning conditions. Panel 2a (T3-T4) allowed us to see whether the replication of the effect of students' self-generation of questions (SQ) vs. teacher-posed ques-

tions (TQ) was already reached after one session after students swapped conditions (T4).

### 3.2 Course specifications

Table 2 details the learning activities in the experimental and control condition. After students swapped conditions, the same program was implemented in the subsequent learning phases. In the case that students prefer one story in one condition more than another story in another condition, this might lead to the problem that the effect found was not triggered by condition but by stories' content. To avoid this text-based bias, four stories were used in a counterbalanced design in the four learning phases, and five other ones were used in a counterbalanced design in the five measurement occasions. We select the nine stories that could fit the experiment, in reference to the length of the stories, the ability of reading of students, the topics of the stories that might suggest interest and thoughtful attention of the students. Most of the stories are taught in the existing literary reading course of the Vietnamese EFL undergraduate program.

#### *Description of an SQ learning session*

Each learning session lasted for five periods which was normal for Vietnamese students (45 minutes/period). The session started from 1 pm and ended at round 5.15pm, with 20-30 minute break in between. There were 20 students participating in the session. First, the teacher had an introduction talk in which students were informed of what they were expected to do as well as what they might expect from the teacher. The first learning activity was modelling reading with self-questioning by the teacher. There were one extract of the story 'A Rose for Emily' and the full story 'The Story of An Hour' used for the modelling. With the first story, 'A Rose for Emily', the teacher provided a hand-out of an extract of the story as well as showed the story on a projector. The teacher encouraged students to maintain the same reading speed with her and she read aloud the story. She usually stopped in between and posed her questions aloud as well as noted them on the blackboard. She encouraged her students to form questions or predictions with her in reading. The students participated actively and they formed many questions as well as made different or opposite predictions about the story's events and characters. The teacher noted quickly all of the questions on the board as an acknowledgement of their contribution as well as to link their questions to other students' questions. Some of the questions noted on the blackboard were discussed openly, as a whole-class activity, in reference to the story's details and to the students' experience.

After the introduction of self-questioning while reading (Stage 1 of Table 2), students were divided into groups of three or four students and received a story's word-guidance sheet of around 30-40 words with explanations and examples. Students would ask each other in their groups the words that they might not know or asked the teacher if no one in the group knew (Stage 2). After a group thought that they were fine with the words, they received their stories, read individually, and

wrote their questions in a question-writing hand-out. Students needed some periods to finish reading and writing down questions (Stage 3). Then they brought two or three questions that they liked best to their group and talked about the questions in their group for around 20-30 minutes. This is the only stage different for the two experimental groups: Group ST1 talked about their questions with their peers while group ST2 explored their questions with free writing (Stage 4). Then each student wrote individually a response text (with the requirement of around 200-250 words) about the story in 60 minutes (Stage 5). In sum, many questions students made in the self-questioning reading are meaningful and interesting (see Appendix A for questions students generated).

*Table 2. Course program and the three conditions*

Self-questioning (SQ)		Teacher-posed questions (TQ)
with group discussion	with individual free writing	
<p><i>1. Illustration of self-questioning-45 minutes</i>            Students observed an example reading with an expert reader illustrating her forming questions, wonderings, and predictions while reading a literary text: students were visualized that there was thinking while reading. Students were invited to form questions with her. Their questioning was encouraged and not evaluated.</p>		<p>Students received the questions for the story they were going to read from the teacher and had questions if they did not understand the questions</p>
<p><i>2. Before reading-30 minutes</i>            Students received background information and vocabulary explanation for a story that they were going to read</p>		
<p><i>3. Individual reading process-60 minutes</i>            Students were instructed to form questions individually while reading a story:            They used the pencil to mark in the text when they stopped for thinking.            Note: they could stop whenever they liked in between            Students wrote down their questions and their initial responses or predictions to stories in a worksheet. Students were reminded that there were no right or wrong responses, no interesting or irrelevant questions and responses, just what was REALLY from their first impression, what made them feel puzzled or interested. Appendix A illustrates the questions students formed in the processing of reading.            Students were encouraged to write down as many questions as possible.</p>		

4. *Exploration-30 minutes*  
*With group discussion*

4.1 Students chose two or three questions that they felt the most challenging, and/or interesting, and/or inspiring/deep for a discussion.

4.2. Students would explore in groups of three possible answers/solutions and note down three questions of their groups and main ideas involving each question that had emerged from the discussion in a worksheet

*With free writing*

4.1 Students chose a question for themselves that they felt the most challenging, and/or interesting, and/or inspiring/deep.

4.2 Students then wrote down their question in a worksheet and developed that into a paragraph with their question as the first sentence.  
 Note: students were reminded that (i) Just write their mind, do not stop to think too much as they write, do not weight up every word, just tell their mind; (ii) Forget grammar, just write in English and/or Vietnamese; (iii) Remove the pressure of quality and focus purely on the quantity of writing.

*With classroom discussion led by teacher*

Teacher led a classroom discussion for the answers to the questions the teacher provided.

5. *Measurement (Response text)*

Students worked on the writing task in approximately 60 minutes

Prompt 1: Imagine you are going to write a letter to your friend about your views after reading the story (a new story which is different from the story in the intervention stage). You might also explore what the story means to you and/or how the story makes a difference in your thinking.

Prompt 2: Now write a letter to yourself. Talk to the person in you something important you get from the story.

For both prompts, the most important thing is getting your message across.

6. *Measurement (self-report)-6 minutes*

Students answered a 10-item questionnaire on the engagement that they perceived towards reading the story.

### 3.3 *Participants*

Participants were 59 Vietnamese undergraduate students of EFL intermediate level within the age group of 21-25. They were all from Mekong Delta Vietnam, sharing similar social, cultural, demographical and economic context. At the time of the experimental course they were all in the last year of a bachelor 4-year EFL training program in Tra Vinh University, Vietnam. The proportion of girls (79.7%) is common for language classes in Vietnam. Participants were randomly assigned to one of the three groups: Group ST1 with 19, Group ST2 with 19 and Group TS with 21 par-

ticipants. Female/male ratio appeared not to differ across conditions. All participants were taught by one teacher.

The study was carried out in four weeks in Tra Vinh University, Mekong, Vietnam. Each week students attended one instructional session of 4 ó 4.30hrs and one test session of 2.30-3hrs, with a pre-test session at the start of the four-week period. The schedule of the sessions is normal for Vietnamese students. The teacher informed the students of the course's purpose and explained that data from the course would be used for research and treated confidentially. Students were told that they would have exactly the same interventions and learning activities, however, in a different sequence. The students were asked to participate fully in all sessions of the course. They were going to get credits and grades for completing the course, a compulsory part of their Bachelor's degree.

### 3.4 Data collection

Data consisted of response texts students wrote and responses to an inventory of perceived engagement in the five testing sessions. In all the five moments, all students of all the three groups were tested in the same location and at the same starting time.

In pre-and post-test, students were asked to write a letter to their friends or themselves sharing their personal thoughts after reading the story, what the story meant to them and/or how the story made a difference in their thinking. Their text (letter) should contain at least 200 words. Students wrote their text with pen and paper. Students in this university are generally not used to writing on a computer at the university. After writing a response text, students gave responses to an inventory of their perceived engagement. In total, there were 295 final texts collected (5 texts per student; 59 students) and 292 questionnaires collected and involved in analyses. Three different students did not submit their inventory, one at measurement time 2, 3 and 4. All handwritten texts were typed to eliminate the effect of handwriting quality on raters' assessment of the texts.

Before and after the course, we also interviewed teachers and students about expectations of learning outcomes, learning contents of literary reading, and students' assessments of the literary reading achievement for their personal, cognitive, and emotional development that they perceived. This interview data would not be reported upon in the current study.

### 3.5 Measures

Students becoming *engaged readers* might be a meaningful learning goal that attracts interest and investment of teachers in literary reading. However, no empirical research on measuring the quality of engagement in fiction reading of student-readers has been reported.

Three sources were used to guide the construction of the two measures of engagement with fiction reading in the study. The first was the three-component conceptualization of learning engagement of Fredricks, Blumenfeld, and Paris (2004).

Behavioral engagement is direct involvement in a set of activities, like reading activities, and includes positive conduct, efforts, persistence, and participation in extra-curricular activities. Emotional engagement covers both positive and negative affective reactions (e.g., interest, boredom) to activities, as well as to the individuals with whom one does the activities. Cognitive engagement means willingness to exert the mental effort needed to comprehend challenging concepts and accomplish difficult tasks in different domains, as well as the use of self-regulatory and other strategies to guide one's cognitive efforts.

A second source we used is from Guthrie and colleagues (Guthrie, Wigfield, & You, 2012, p. 602) who described attributes of an engaged reader. An engaged reader is a person who is motivated to read, strategic in their approach to comprehending what they read, knowledgeable in their construction of meaning from text, and socially interactive while reading. In other words, highly engaged readers read deeply and frequently used many comprehension strategies to gain meanings from texts (Wigfield et al., 2008).

A third source is the report of strategies that effective adolescent readers used in exploring literary texts; for example, making inferences, expressing diverse responses (Duke & Pearson, 2002; Janssen, Braaksma, & Rijlaarsdam, 2006). Researchers demonstrated a strong relation between high-engaged readers and deep reading: the more engaged in reading, the deeper cognitive processing a reader performed (Guthrie et al., 2012).

In the current study, we measured students' engagement with literary reading in two ways. The first one was based on a written response task (with 200-250 words) and referred to the way students verbally responded to reading a story. The second one related to the perceived engagement of students in literary reading and was measured by an inventory.

### 3.5.1 *Written response task*

There were five different stories used for five measurement moments (O<sub>1-5</sub>). In each measurement, students were provided with a story and a written response task. The written response task offered a choice of the two prompts for all the students in all measurement moments: (1) "Imagine you are going to write a letter to your friend about your views after reading the story. You might also explore what the story means to you and/or how the story makes a difference in your thinking." (2) "Write a letter to yourself. Talk to the person in you about something important you get from the story." Students could choose one out of the two prompts. We assumed both prompts encouraged reader-based responses and were not different in promoting reading engagement from the students.

Six variables, from students' written response texts, were used to measure student engagement with literary reading. The coding unit for each variable is the entire written response text of a student at a particular measurement moment (for the reliability between two raters for the variables in students' written response texts, see Table 3).

Table 3. Inter-rater reliability for the variables of reading engagement in students' written response texts. Inter-rater reliability in terms of Pearson's correlation

Variable	Measurement	<i>r</i>	Min-Max value
Inference	Valid predictions and inferences about character(s)	.60	0-0
Emotion towards characters	Occurrence of emotional expressions towards character(s)	.61	0-0
Variety of response	Types of responses occurring in students' response texts	.77	0-9
Personal voice	First-person singular pronouns ( <i>I, me, my, myself</i> ) and Intensifiers ( <i>extremely, absolutely, very</i> )	.74	0-0
Global interpretation of theme	Students' evaluative response of the central theme of the whole story, in connection to their personal life.	.62	0-5
Productivity of response text	The number of words counted in each response text		0-9

The first variable was *inference*. From an emotional perspective, inferences about characters were made through the personal involvement of readers in interacting to the textual information of a literary text (Kneepkens & Zwaan, 1994). To make explanatory inferences about characters of a literary text required a high level of cognitive effort because students had to go beyond the surface understanding of that text (Janssen et al., 2006). This also reflects a deep cognitive processing of the readers in digging into full comprehension of a complex text (Duke & Pearson, 2002; Ericsson, Krampe, & Tesch-Romer, 1993; Guthrie et al., 2012; Janssen et al., 2006; Kneepkens & Zwaan, 1994). Inferences were measured by the occurrence of the valid predictions and inferences towards character(s) in students' response texts. The inferences might be signaled with thinking verbs like *understand, wonder, suppose*. An example in a student's text: *When his heart beats louder and louder, we understand that he regrets [regretted] how he acted.*

The second variable was *emotion towards characters*. Literary research revealed that readers especially experienced emotions when they were willing to be immersed and/or involved in the reactions of the characters (Kneepkens & Zwaan, 1994, p. 132). *Emotion* towards characters was measured by the occurrence of the emotional expressions towards character(s), which were signaled with adjectives and/or verbs such as *excited, apprehensive, proud, and angry*, or verbs like *admire*. Two examples of (dis)empathy expressions in students' texts: *I admire her so much because she overcomes [s] herself by [with] the mother's love* and *The main character of [in] this story make[s] me confused and scared.*

The third variable was *variety of response*. We located nine types of response based on the concepts of F-emotions (fiction-based emotions) and A-emotions (artifact-emotions) of Andringa (1996) and Kneepkens and Zwaan (1994). We assumed the more types of response included in a text were found, the richer feelings the

readers have experienced towards a literary story were revealed (Earthman, 1992; Janssen et al., 2006, 2012; Peskin, 1998). Variety of response was measured by the types of response occurring in students' response texts including (i) story-based prediction, (ii) empathy or (iii) dis-empathy towards characters, (iv) comprehensibility or (v) incomprehensibility, (vi) literature appreciation or (vii) depreciation, (viii) novelty, (ix) local interpretations (see Appendix B for illustration of these types of response from students' texts).

The fourth variable was the *personal voice* of readers in expressing their attitude towards a story. This indicator was measured by the two linguistic features: The occurrence of First-person singular pronouns (*I, me, my, myself*) and of Intensifiers (*extremely, absolutely, and very*). In our earlier study of the writing voice of Vietnamese students, these two linguistic features proved to be reliable and valid indicators of personal voice in writing from a micro-linguistic perspective. We assumed that the more personal voice was found in a student text, the more strongly the writers express their feelings about the story. Therefore, this indicator might stand for affective engagement. The occurrence of this indicator was measured only in inferential (indicator 1) and emotional sentences (indicator 3) because most texts of the students included some parts rephrasing or retelling a story's content. In that particular part, the occurrence of this variable would not really reflect the writers' attitude.

The fifth variable, *global interpretation of theme*, was students' evaluative response of the central theme of a whole story, in connection to their personal life. We assumed the more engaged a reader is the more significant, explicit, and personal-connected he is in expressing his understanding of the theme of the story he read, and vice versa, for low-engaged students, the less clear, vague, and less personal-connected interpretation of theme. Global interpretation of theme was measured by the general quality of students' personal exploration of the central theme of a story. It was coded from 0 (= no interpretation) to 5 (= explicit and personally connected interpretation). An example of the text with a high score for explicit, clear, personal-connected interpretation of theme is given in Appendix C.

Finally, the sixth variable, *productivity of response text*, referred to the effort students made in fulfilling a reading task. We assumed the longer a written response to a work of fiction is the more effort a student showed in being involved in reading the fiction. Productivity of a response text was measured by the number of words counted in that text, using the word-count function of Microsoft Word.

A selection of the texts, including all five measurement occasions and all literary works of fiction was rated twice, by independent working raters. Inter-rater reliability in terms of Pearson's correlation varied from  $r = .60$  for *Inference* to  $r = .77$  for *Variety of response*.

### 3.5.2 Inventory of perceived engagement

The instrument consisted of 10 items indicating four aspects of engagement: self-confidence in understanding (Guthrie et al., 2012; Wigfield et al., 2008), interest (Fredricks et al., 2004; Kneepkens & Zwaan, 1994), involvement (Duke & Pearson,

2002) and imagination (Van Dijk & Kintsch, 1983). Four items referred to self-confidence in understanding (I understood the story, Reading the story changed my mind, I made up a meaning of the story myself, The story taught me something), two indicated students' level of interest towards a story (I felt interested in reading the story, I like to read more from this author), three items of involvement (The more I read the story, the deeper I get into it; The more I read the story, the more I became involved; I felt very active when I was reading), and one on imagination while reading (The story created scenes, people, and actions in my mind while reading). All items were answered on a Likert-type scale, with 1 = does not apply and 5 = does apply to a great extent. Reliability of the 10 items of the questionnaire through five times of measurement is high (ranging from Cronbach's  $\alpha = .84$  to  $.90$ ).

### 3.6 Analyses

To answer the research question 1 we used multivariate analyses of covariance in two panels. In panel 1, condition (SQ vs. TQ) was the independent variable, and the seven variables of engagement in post-test 2 (T3) were the dependent variables, with the pre-test scores of the seven variables (T1) as covariates. This analysis was repeated for panel 2 (T5), with the same pre-test scores as covariates. Subsequently, we used paired-samples t-tests to examine the differences between the measurement times within a condition.

To examine the differences between the two versions of the experimental intervention (Self-questioning supported by Group discussion vs. by Free writing), we, first, applied multivariate analysis of covariance in panel 1a with condition (SQ<sup>D</sup> and SQ<sup>F</sup>) as independent variable, the seven indicators of reading engagement in post-test 1 (T2) as dependent variables, and the pre-test scores of the seven indicators (T1) as covariates. Second, we repeated these analyses twice, with condition SQ<sup>D</sup> and TQ and SQ<sup>F</sup> and TQ, respectively.

To examine differences between students with an initial low engagement in literary reading and those with an initial high engagement, the multivariate analyses and paired-samples t-tests as described above were repeated for these two groups of students separately.

## 4. RESULTS

### 4.1 Self-questioning and engagement in literary reading

In panel 1, the multivariate covariance analyses with the seven dependent variables showed a significant effect ( $\lambda(7, 42) = 2.57, p = .027, \eta^2 = .30$ ). Subsequently, the univariate results showed positive effects of intervention on four out of seven variables: *inference*, *variety of response*, *productivity of response text*, and *self-perceived engagement*. The SQ-condition generally scored higher than the TQ-condition in making *more inferences* ( $F(1, 56) = 4.38, p = .042, \eta^2 = .084$ ), showing a *greater variety of responses* ( $F(1, 56) = 7.77, p = .008, \eta^2 = .14$ ), producing *longer response texts* ( $F(1, 56) = 7.92, p = .007, \eta^2 = .14$ ), and expressing a *higher level of perceived*

engagement in reading works of fiction ( $F(1, 56) = 4.85, p = .033, \eta^2 = .09$ ; see Table 4).

Table 4. Means and (standard deviations) of the two groups:  
Self-questioning-then-Teacher-questions condition (group ST,  $n = 38$ ),  
and Teacher-questions-then-Self-questioning condition (group TS,  $n = 21$ )

Variable	Group	Pre-test		Panel 1		Panel 2	
		$O_1$	$O_2$	$O_3$	$O_4$	$O_5$	
Inference	ST	0.28 (0.38)	.95 (1.14)	1.00 (1.06)	1.31 (1.4)	0.79 (0.77)	
	TS	0.31 (0.43)	.36 (.45)	0.50 (0.59)	.88 (.97)	0.90 (1.03)	
Emotion towards characters	ST	0.62 (1.00)	.93 (1.59)	1.49 (1.57)	1.64 (2.29)	1.37 (1.33)	
	TS	.41 (0.60)	.4 (.75)	1.21 (1.58)	1.4 (2.23)	1.28 (1.52)	
Variety of response	ST	2.05 (1.29)	2.55 (1.41)	2.89 (1.41)	2.84 (1.58)	2.92 (1.55)	
	TS	2.24 (1.26)	1.76 (.99)	2.05 (1.66)	2.67 (1.35)	2.57 (1.32)	
Personal voice	ST	1.2 (1.40)	2.05 (2)	2.47 (2.76)	2.37 (2)	2.59 (2.45)	
	TS	1.71 (1.89)	1.26 (1.21)	2.14 (2.56)	2.45 (1.98)	2 (1.45)	
Global interpretation of theme	ST	1.63 (0.81)	2.76 (1.18)	2.95 (1.08)	3.09 (.96)	3.07 (0.74)	
	TS	1.02 (1.10)	1.76 (.93)	2.77 (1.03)	2.88 (.97)	3.14 (1.05)	
Productivity of response text	ST	297.68 (86.21)	402.58 (134.18)	473.08 (143.89)	460.68 (148.41)	404.47 (124.17)	
	TS	302.62 (156.31)	379.29 (142.56)	395.57 (113.14)	436.81 (110.23)	426.48 (114.89)	
Perceived engagement	ST	3.74 (0.52)	3.8 (.49)	3.75 (0.60)	3.76 (.6)	3.77 (0.50)	
	TS	3.30 (0.57)	3.44 (.64)	3.44 (0.50)	3.75 (.64)	3.63 (0.59)	

In panel 2, the multivariate covariance analyses with the seven dependent variables did not show a significant effect of condition on dependent variables ( $\lambda(7, 43) = .72, p = .659$ ). This was what we expected because at the moment (T5) all students had approached all the interventions on reading engagement in the experiment. There-

fore, all groups were expected to reach the same level at the final moment of the experiment.

However, we found that students from the experimental condition in panel 2 did not differ significantly between T3 and T5 for any of the dependent variables.

Inspection of the development curves of both conditions seemed to indicate that the hypothesized effect might already been reached at T4. Therefore, we repeated the multivariate analysis of covariance for T4 instead of T5. As expected, there was no effect. Paired-samples t-tests for all variables within the experimental condition showed higher scores for the three variables *variety of response* ( $t(20) = 2.15, p = .044$ ), *productivity of response text* ( $t(20) = 2.12, p = .046$ ), and *self-perceived engagement* ( $t(19) = 2.45, p = .024$ ). This might mean that in general only one session of self-questioning was enough to reach an effect. Therefore, we repeated all analyses for T2 instead of T3. However, we did not see an effect of condition.

In sum, this meant that we saw an effect of self-questioning on the four variables *inference*, *variety of response*, *productivity of response text*, and *self-perceived engagement* in panel 1 after two sessions (T3) and three out of the four variables in panel 2 after one session (T4).

#### 4.2 Maintenance effect of Self-questioning

To test the maintenance effect of Self-questioning in panel 1, we performed paired sample t-tests between T3 and T5 for ST-group for the four indicators of engagement that were found significantly increasing in panel 1. There was no significant difference for any of the variables, except for *productivity of response text*. That means a maintenance effect was found for *variety of response*, *inference*, and *self-perceived engagement*. For *productivity of response text*, no maintenance effect was found, students in group ST wrote shorter response texts at T5 than at T3 ( $t(37) = 2.94, p = .006$ ).

#### 4.3 Self-questioning with Group discussion versus with Free writing

The second research question was about differences between both experimental conditions. The multivariate analysis of covariance in panel 1a did not show any significant differences in engagement as measured by the seven indicators, between both conditions ( $\lambda(7,23) = 2.08, p = .087$ ); between the conditions self-questioning group discussion and teacher-posed questions ( $\lambda(7,24) = 1.624, p = .177$ ) and between the conditions self-questioning free writing and teacher-posed questions ( $\lambda(7,24) = 1.735, p = .148$ ). That meant the two versions of self-questioning, self-questioning with free writing or with group discussion, were not different in effect.

#### 4.4 Differences between initially low and high engaged readers

Connected to literature on literary reading research that indicated an influence of students' initial quality in processing reading, and the relatively high standard deviations of the four variables, we divided students into initially low-engaged students

(low) and initially high-engaged students (high), depending on their mean scores of the four variables at the pre-test. Grouping low and high engagement groups was based on the mean score at the pre-test for each variable and condition separately. This might mean that different mean scores were used for the four variables and the two conditions. Then the paired-samples t-tests as described above were repeated for the low and higher engaged student groups. In Table 5 we summarize the results.

Table 5. Effects on low and high engaged readers

Variable	Group	Panel 1		Panel 2	
		SQ	TQ	SQ	TQ
Inferences	Low	+	+		
	High				
Variety of response	Low	+			
	High				
Productivity	Low	+	+		
	High	+		+	-
Perceived engagement	Low		+		
	High				

Notes. + = significant increase; Blank = no change; - = significant decrease; TQ = Teacher-posed question condition; SQ = Self-questioning condition; Low = Low initial engagement with literary reading and High = High initial engagement

In reference to *Inference*, students with an initial low engagement generally increased in both conditions, SQ and TQ. However, in the SQ-condition the increase was significantly larger than in the TQ condition ( $F(1, 33) = 5.26, p = .028, \eta^2 = .137$ ). The high engaged students generally did not change. For *Variety of response*, we only found an increase in score for the group of students with an initial low engagement. For *productivity of response text* both low-engaged and high-engaged students in the self-questioning condition increased their scores as did the group of students with low engagement in the teacher-posed question condition. Finally, for *perceived engagement*, we found significant improvement for the low-engaged students in the control condition.

## 5. DISCUSSION AND CONCLUSION

Results showed that students reading with self-questioning, compared to reading with teachers' questions, produced a beneficial effect on students' engagement. Students produced *more valid inferences* towards characters in the stories; were *more diverse in response* towards the stories; and wrote *longer response texts*. Students of self-questioning condition also showed a *higher level of perceived engagement* with literary reading. No difference was found between the two types of self-questioning:

self-questioning supported by discussion or by free writing. Students maintained the quality of *inference*, *variety of response*, and *self-perceived engagement* in time. Three out of the four main effects, *variety of response*, *productivity of response text*, and *perceived engagement*, were observed again in a replicated test.

We did not find an effect in students' empathy to characters, personal voice and global interpretation of theme. In this study, we defined emotions towards characters in fiction stories through explicit and "surface" expressions of emotion, such as *excited*, *apprehensive*, *proud*, and *angry* or verbs like *admire*. However, there might be other indirect ways of expressing students' judgment about characters like the statement "He committed the crime, not because he was desperate for money of the old man. One more time, it is difficult to understand the human's nature." (Student numbered 13, post-test 4). In this expression, we might infer some puzzlement of the reader towards a criminal character. However, these indirect ways of expressing emotions towards characters in a story were not coded in the present study as it might be difficult to measure the indirect expressions in a reliable way. Similarly, the personal voice was based on two local-leveled linguistic features, first-person singular pronouns and intensifiers, located in the inference and emotion statements. Although these two features were the most explicit indicators of how personally the writer-readers revealed themselves in their response texts, there should be more comprehensive ways of measuring the *personal voice* of the writer students. It might be because of the deficits in defining the two variables, we did not observe an effect of self-questioning. The global interpretation of theme emphasized students' quality in interpreting the global theme of a work of fiction and connecting the theme to their personal experience. We assumed the Vietnamese students are sufficiently experienced, through their mother tongue literary learning, in writing about the central theme of a fiction story and expressing the connection of the themes embedded in a fiction story to their life ideals. It should be noted that to get a seat in the university course, the students had to pass two examinations in Literature. The first one is the public National Baccalaureate Exam where they were expected to meet the qualifying standards of comprehension and appreciation of Vietnam Literature set by the Vietnam Ministry of Education. The second one is the University Entrance Exam where the competition among exam participants is intense because of quota limited seats of the university. We could think that, at this level of literary reading, they reached the quality of making a clear and explicit interpretation of a story's theme, connecting that to their personal experience, as well as drawing a lesson for themselves from what they read.

There was no difference in the two variations of self-questioning used in this study: whether the questions generated by the students were explored in group discussion or in free writing did not make a difference in their engagement with literary reading. We might infer from this result a broad generalization of effects of self-questioning for classroom application. Self-questioning could be combined successfully with two different types of exploration, group discussion or individual free writing. This result corresponds to other comparative studies on self-questioning instructions. Different instructional approaches proved equally effective: for example, self-questioning with or without a teacher's modeling and self-questioning with or without teacher's assistance, did not make a difference in students' comprehen-

sion (see for a review of research on effective self-questioning instructional approaches, Janssen, 2002).

The effect of self-questioning could depend on learner characteristics. The initially low-engaged readers were positively influenced by self-questioning: they made *more inferences about* and *expressed more types of response* to the story they read. Meanwhile, the initially high-engaged readers did not make progress in inference or in variety of response.

The effect of self-questioning could depend on amount of practice in writing responses to fictions. When students have had some practice in writing responses to fictions, it takes less time for self-questioning intervention in classroom. The experiment showed that when students are inexperienced in writing responses to fictions, the effect of self-questioning intervention on students' reading engagement was observed after two times of self-questioning practice. The effect, however, could be reached faster, after one time of self-questioning practice, in students with more practice in responding to fictions. Teacher might judge the experience of responding to literary texts of students to decide the time period of self-questioning training in classrooms.

A reading classroom encouraging autonomy of readers in seeking out meanings for themselves from what they themselves had lived through in reading literature might be a common aim for many researchers and practitioners in the field, no matter what language (L1 or L2) readers read (see discussions on an effective literary reading classroom of Agee, 2000; Janssen et al., 2009; Rosenblatt, 1983). However, creating a self-questioning classroom is a challenge for both teachers and students when students expect a domineering or controlling approach from teachers and prefer a right answer from them (Janssen et al., 2009). It should also be noted that in the process of the study we observed the active participation of students in self-questioning activities. We started the course with explaining to the students the function of questions in reading and interpretation of literary texts. We experienced this as an important activity.

The study might provide some information on using self-questioning in classrooms, especially EFL literary reading classrooms. We examined the effects of self-questioning on reading engagement of students within the age group of 21-25. They read English fictions and wrote response essays in English. Two versions of self-questioning approach, self-questioning in combination with group discussion and with free writing, were also tested to examine the generalizability of the approach.

The study confirms that a reader-based classroom with students' self-generation of questions while reading results in a higher level of cognitive and affective reading engagement. It seems that students who are initially low-engaged readers particularly benefit from self-questioning, although the group of students also benefit from teacher-posed questions. Further research on operational efficiency of the use of self-questioning might be an interesting line of research.