

Reader-Text Transaction In Text Comprehension

Muhammad Kamarul Kabilan
kabilan@usm.my
School of Educational Studies
Universiti Sains Malaysia

Mak Kem Seng
mkseng88@streamyx.com
Department of Language Studies
Universiti Teknologi MARA

Ooi Ae Kee
akooi745@kedah.uitm.edu.my
Department of Language Studies
Universiti Teknologi MARA

Abstract

The complexities and dynamics of reader-text transaction have become important issues in the teaching of reading comprehension. This study examines how tertiary level readers engage internal dialog with the text. It also seeks to provide the much needed insight of it onto the aspects of text comprehension processes. The aim of this study is to explore and provide descriptive analyses pertaining to the issues of questioning the text in invoking active interactions with the text. A total of 62 students pursuing semi-professional courses at diploma levels in one of the premier institutions of higher learning participated in this study. Qualitative data was obtained through students' written reports of the adapted verbalisation of thoughts of self-generated questions, semi-structured interviews with the students and field notes extracted from the researchers as participant observers. Thematic analysis was then used to identify emergent themes grounded in the data. The findings indicate that readers are able to take ownership of the text when they engage inner dialog through active interaction with the text, and gain better understanding of the text. This article will argue that readers are transformed from passive to active participants if they are able to activate thinking skills through reader-text transaction in the form of questioning the text. Therefore, emphasis should be placed on developing reader-text transaction towards the use of thinking skills in text comprehension. Such reader-text interactions will enable readers to take control of purposeful learning with far reaching results in text comprehension.

Keyword: reader-text transactions, lower order thinking skills (LOTs), higher order thinking skills (HOTs), literal, interpretive and applied thinkers.

Introduction

Reading is a dynamic, cognitive and interactive process. It is not merely a process of decoding of codes in printed form but a process of creating meaning as a result of the transaction between the reader and the text. If the reader is able to engage in an active interaction with the text, then he/she will be able to comprehend the text better. Hoover and Tunmer (1993) posit that making meaning of any words depends largely upon linguistic comprehension and cognitive ability that entail a degree of conceptual understanding. To foster such deep understanding of the text, readers must have the ability to interact, engage and make meaning of information available in it. Therefore, the complexities and dynamics of reader-text transactions have become important issues that need to be examined and clarified, particularly on aspects of how readers at tertiary level use and capitalise upon this approach of active interactions with text (Sengupta, 2002).

In the Malaysian setting, many students, who are linguistically proficient, may not be able to handle academic reading competently and still require the assistance of teachers or lecturers (Hajibah Osman, 2004; Jariah Mohd Jan & Rosli Talif, 2005). These students depend very much on the instructors, and still expect to be spoon fed in their academic pursuit. Even when the students are taught to apply certain strategies to help them understand the text, it was discovered that they were unsure whether they have identified, underlined or highlighted the right key words or main points of the text (Noorizah Mohd. Noor, 2006). Other studies elsewhere also indicate similar trends – majority of second language learners need to read an extensive amount of text in their academic pursuit (Anderson, 1999), and have low confidence in academic reading (Sengupta, 2002; Savage, 1998).

In the pursuit of academic reading at tertiary level, undergraduates are required to have critical, analytical and creative skills to function well in their studies. As such, it is of great importance to ensure that undergraduates are well equipped with the necessary competency to function well in text comprehension. One means of achieving this is by teaching strategy using questioning the text to ensure that these students are competently equipped with reader-text response, which will eventually assist them to have better control of the reading process to enable them to obtain better understanding of academic materials. By giving overt attention to questioning techniques, instructors are actually facilitating and encouraging students to activate their thinking skills, to enable students to take ownership of the reading process and ultimately transform from being passive readers to active participants in terms of their academic reading.

The purpose of this study is to examine how students in a Malaysian university capitalise on active reading strategies that involve questioning the text using self-generated questions when they engage in a meaningful interaction with the text. Also addressed in this study is the stimulation of thinking skills (both lower order and higher order thinking skills) that are triggered by questioning the text. The following are the research questions for the study:

1. What are the significances of questioning the text?

2. What are the significant impacts of questioning the text in understanding the text?
3. What are the students' responses towards their questioning of the text?

Literature Review

Text comprehension

A text is simply print on paper without the presence of a reader. When the text is brought into the reader's mind, the words begin to form meanings based on the reader's prior knowledge, experience, feelings, background, memories and associations called forth by the act of reading (Alvermann & Phelps, 2002). The act of reading is the exchange or transaction between the reader and the text. This inner conversation enhances students' understanding, builds their knowledge, and develops their insights. The ability to read or indulge in inner conversation is an expertise that students must develop in order to be actively engaged with the text in reader-text interaction. Many studies in the area of text comprehension have found that readers who are able to activate and demonstrate an understanding of effective text comprehension strategies can certainly achieve excellence in second language learning and ultimately become autonomous learners (Wilhelm & Betty, 2008; Rossow, 2001). Questioning the text, while undergoing the process of reading, is one of the effective text comprehension strategies employed by competent readers to construct meaningful reading. Massey (2003) indicates that while the readers go through the process of questioning the text, they are aware of how well they could comprehend the materials in the text as they are mentally active while undergoing the reading process. In this particular study, the focus is to explore how students are able to engage meaningful interactions with the text through questioning the text of reader-text transaction.

Authentic self-questioning techniques and thinking skills

Findings from the study conducted by Brozo and Simpson (1995) show that students who are able to invoke the use of question-answering ability in the process of reading demonstrate increased achievement in the reading test. Students who only utilise lower order thinking skills (LOTs) through questioning techniques are only able to provide explicit and superficial information extracted from the text (Ball & Washburn, 2001). This implies that readers will not be able to understand the text in terms of exploring the critical and analytical aspects of the content if higher order thinking skills (HOTs) are not utilized. With HOTs, readers would be able to make elaborate and meaningful recalls of the text, think critically as well as analytically about the content that are being scrutinised, and develop a deeper understanding of the issue being discussed.

Reading as dynamic transaction between reader's knowledge and author's message

In the past, reading entails a process whereby the function of the reader is merely to acquire the author's message. However, from a contemporary perspective, the process of reading is now viewed as a dynamic constructive process whereby the emphasis is on the

reader using his/her personal background of experience to construct meaning based on information provided by the author. This dynamic constructive process of the students will be one of the issues that will be addressed in this study.

Levels of comprehension

In the model of Reciprocal Questioning or ReQuest, Ruddell (2001) posits that three categorical levels of thinking skills are activated when readers engage in active interaction with the text (see Figure A). Adapting from Herber's (1978) level of comprehension, Ruddell (2001) categorizes the three levels of questioning techniques as literal, interpretive and applied. Literal level involves the stimulation of thinking skills, which is associated with knowledge and comprehension abilities. Such abilities are derived from the retrieval of the input that is based on content material as found in the text. Briefly, students are expected to have the ability to read the lines of the content material. They are able to translate by decoding the printed words to get the gist of the author's message (Herber, 1978). As for the interpretive level of comprehension, the reader is expected to 'read between the lines'. According to Herber (1978, p.45), at this level, readers are able to perceive the relationships of the information in the content material and conceptualise those relationships. In other words, these readers are capitalising on their interpretation skills of using content information in the text and activating their critical and analytical skills to construct meaning in reader-text transaction. Under the applied level, readers make use of HOTS in text comprehension. Herber (1978) postulated that reading at the applied level is undoubtedly akin to discovery. At this level, readers are able to synthesise information in the content material to construct additional input in reader-text transaction. The exploitation of thinking skills such as synthesis and evaluation is necessary at this level of questioning. Essentially, readers are expected to 'read beyond the lines' in order to comprehend the text effectively.

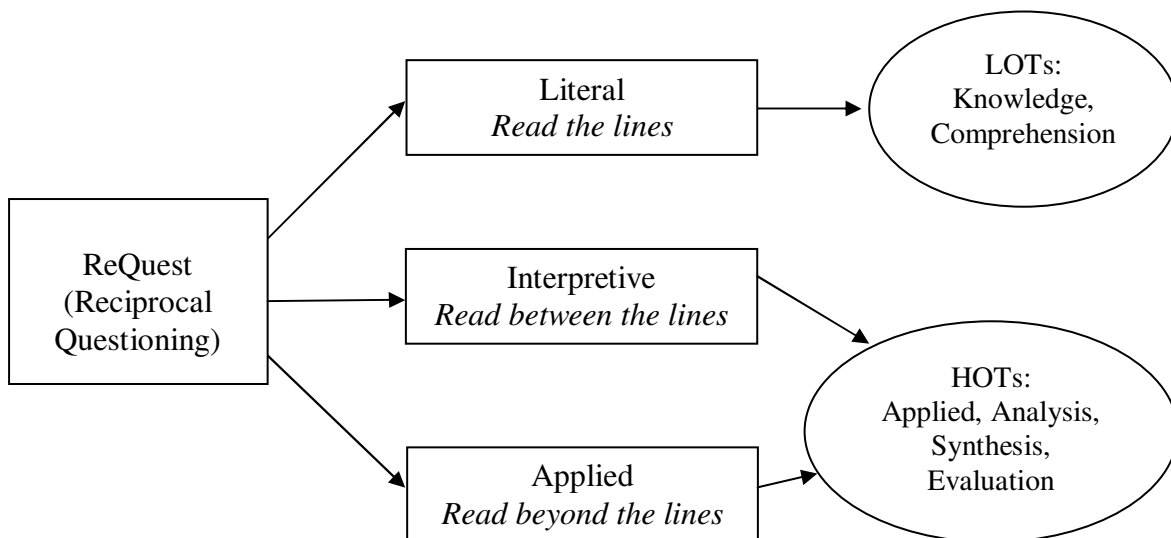


Figure A: Three categorical levels of ReQuest (Ruddell, 2001): Adapting Herber's (1978) level of comprehension

Self-questioning

Readers who are able to actively engage in inner conversation with the text through the simulation of self-questioning approach will be able to reap certain benefits. In fact, reading would then be seen as an enjoyable experience as the readers are able to make use of such interactive process to take control of their reading. According to Moore and Rudd (2002), readers who are able to take charge of the reading process should be able to use the appropriate types of questioning skills to respond to data or information presented in the text. It is therefore pertinent to make use of this construct in this study to explore what readers capitalise on when they are actively involved in the reading process. Such construct is of prime importance as we will be able to gain insight into how readers cope and apply the appropriate questioning skills when they engage in active interaction within the context of reader-text transaction.

Research Methodology

This study was conducted on a selected group of 62 respondents pursuing semi-professional courses at diploma levels in a public university in Malaysia. It is basically qualitative by nature and its central concern is to investigate readers' ability of using interactive text processing skill of questioning the text. An adapted version of thinking aloud was used to access the thinking process of readers. In the context of this study, the adapted version of thinking aloud involves articulating as well as putting into words the mental procedure by which one executes the thinking tasks (Beyer, 1997). On the onset of the research, respondents were told that in the reading process there would be lots of interactions of 'random chattering' lurking in readers' mind. Respondents were given a text taken from one of the MUET examinations. They were then requested to write down these random thoughts, feelings and opinions which were transformed and translated as 'question the text'. These random thoughts and self-generated questions would provide the avenue to explore the various levels of thinking skills that are being exploited.

Besides, semi-structured interview and field notes extracted from the researchers as participant observers were used to explore the respondents' engagement in active interaction with the text. In the semi-structured interview, 10 specifically selected respondents representing Literal Thinkers of LOTs, Interpretive and Applied Thinkers of HOTs were interviewed on their perceptions and responses towards the use of questioning the text in reader text transaction. The interview sessions were audio recorded to avoid discrepancies when transcribing the script. It was conducted on a one-to-one basis and each session was within the duration of half an hour. For example, among issues discussed were the perceptions and responses based on the strengths and weaknesses of questioning the text, how respondents capitalised the use of questioning the text and their comments on the verbalised thoughts provided by the respondents.

The field notes recorded by researchers as participant observers were also used to substantiate the validity of the findings extracted from the transcribed thinking aloud and semi-structured interview. Essentially, the field notes were used as triangulation purposes to provide greater conviction on the reliability of the findings. As such, consistency of judgement was assured through the procedure of assessing and reassessing the input from

the adapted thinking aloud and semi-structured interview. The converging evidence is to address the qualitative dimensions of this research.

Data Analyses and Findings

The data elicited from the respondents was analysed from the qualitative dimension, using the procedure of thematic analysis. Thematic analysis is a process for encoding qualitative information (Boyatzis, 1998), whereby it requires the researcher to identify and determine emergent patterns found in the richness of data acquired from the transcribed thinking aloud protocol of questioning the text. The reliability of the coding of emergent themes was based on the consistency of judgment on the observed and perceived data.

It was also subjected to interrater reliability to justify the coding of the emergent themes. Two interraters with vast experience in the teaching of reading comprehension were enlisted to review and evaluate the coded emergent themes of questioning the text that were raised by the respondents. These interraters were requested to provide feedback based on the dichotomous ratings which involves a choice of between two alternative (eg yes or no) of straightword approach (Wood, 2007). The interraters were given prior training on the coding of emergent themes based on theory-driven code of lower order and higher order questionings. Essentially, the deployment of scaling or rating key words was used as the basis by the interraters to justify and ensure the identification of the significant emergent themes. In the process, memo-writing (Charmaz, 2006, p.72) of the coded data was used extensively to draw out significant themes based on the deployment of scaling or rating key words.

Research Question 1: What are the significances of questioning the text?

Qualitative data obtained from the respondents' thinking aloud while they are engaged in active interactions with the text were analysed to provide introspective and retrospective descriptions of reader-text transaction in text comprehension. This introspective aspect of students' voices indicated the different types of reader-text transaction when they are constructing meaningful interactions with the given text.

Exploitation of lower order questioning

As indicated in Table 1, the respondents asked questions that reflected a literal level of comprehension. These were obtained from the significant themes identified from students' responses. This is an indication that the respondents are quite comfortable with this level of thinking as they have only to draw upon facts as stated in the text. This implies that the respondents are very much focused on understanding the meaning and intention of the text. As such there is indication that the respondents were utilising the lower order thinking skills (LOTS) mirroring Herber's level of comprehension as posited by Ruddell (2001).

The students' self-generated questions suggest that they are inquisitive and their primary concern is to focus on the author's intentions and messages. At this level, readers are able to engage with the text and concentrate on facts explicitly stated in the text. The

classification of literal level of questioning is conducted on the basis that the answer to the question is 'right there' which is explicitly stated in the content material of the text (Raphael, 1986). The reliability of judgment for literal questions was triangulated by assessing and reassessing them in different attempts so as to ensure there is justification in the consistency of the judgment made.

Table 1: Thinking aloud protocol: Reading the lines

Literal Level of Comprehension (Reading the lines)

- What are meant by words/phrases such as teenagers, transgress with guilt, prejudice, aggravated assault rapes, forcible rape, Homo sapiens, self esteem, pessimistic view, quicksand of words, rigid inheritance, aggression, hostility?
- What are the causes of aggression?
- How do they feel when they are aggressive?
- Why are human beings considered as animals in this theory?
- What are the symptoms that cause increasing violence?
- What are the categories of aggression?
- Why is it that aggravated assault rape has increased the most but is far below the rate increased for property and non-violent crimes?
- Who are the victims of aggression?
- What are the similarities between animal aggression and human aggression?
- What are the differences between violent and non-violent crimes?
- What is the highest crime rate nowadays?

Exploitation of higher order questioning

In categorising emergent themes reflecting the exploitation of higher order questioning skills, the researchers specifically coded them into interpretive and applied levels (Table 2). The coding and categorisation of these higher order questioning levels were based on the specification as postulated in Herber's level of comprehension. Further justification and consistency in systematic coding of the classification of higher order questioning skills were carried out based on the theoretical underpinning of Raphael's original construct of Question-Answer Relationships (Raphael, 1986).

Table 2: Thinking aloud protocol: Reading between/beyond the lines

Interpretive Level of Comprehension (Reading between the lines)

- How does the author know that assaulted rape has occurred?
- What are the other suggestions that can make people value peacefulness?
- Why is it impossible to reduce human aggression while we have already found the factors?
- Why blame man for his animal instinct in his aggressiveness while there is no scientific research on instinctive urge in organism?
- It seems there is no information about the degree of severity of serious crime. Are we becoming more savage as a nation?
- What are the punishments that government do to resolve this violence?

Applied Level of Comprehension (Reading beyond the lines)

- The passage mentioned about the increasing crime rate. I wonder How are those criminal cases for property and non-violent rape being recorded?
- Could it be that the law in Malaysia is one of the factors accounting for the increasing rate of aggression?
- Aggression is not such a bad thing? Don't we need aggression to survive? Survival of the fittest as they say.
- All of us get stressed up and would go through a phase of depression. Does that mean that we have to resort to aggression?
- Blaming it on something else is using it as a scapegoat. Coward!!!! Should men embrace their manly animal instincts.
- What are the other things that they commit when they are aggressive?
- What are other steps that could be taken to control their emotions?
- Why is there no scientific evidence to support the view that aggressive instinct really exists in human beings?
- Wouldn't it be better to look for the causes for human aggression rather than directing attention to the effects from the habit?

It can be observed that at the interpretive level of questioning skills, readers are expected to engage in reader-text transaction that reflects their ability to 'read between the lines'. It can be seen from these few examples that readers have the abilities to interpret input based on content material explicitly stated. This is in line with the interpretive level as postulated by Herber (1978) whereby readers are able to use the content information in the text and subsequently activate their critical and analytical skills to construct meaning. For example in Table 2, it can be observed that the readers were able to display the ability to generate questions depicting the relationship of 'think and search'. In short, there is

strong indication that respondents have demonstrated the ability to grasp the relationships among content materials, indicating the ability to apply and analyse the content at a higher level.

As for the higher order questioning skill being depicted at applied level, it can be seen that the readers have indicated the ability to read 'beyond the lines'. With the given input of the evidences, there are clear indications that readers in this study are readily utilising higher order questioning skills of engaging inner conversation with the text. Such convergent set of findings is in tandem with Herber's (1978) applied level whereby the respondents have apparently attempted to make use of the ability to synthesis and evaluate input from the content material to construct additional input for meaningful reader-text transaction (Table 2).

Research Question 2: What are the significant impacts of questioning the text in understanding the text?

This question would be discussed based on respondents' perception on the effectiveness of interactive text processing skill using questioning the text onto the understanding of the text. In the process, respondents were required to rate their understanding of the text after undergoing such interactions into categories such as fairly, moderately, satisfactory, good or excellent.

Table 3: Perception of respondents: Understanding the text

Understanding the text	Percentage (%)
Fairly	0.5
Moderate	15.8
Satisfactory	50.2
Good	29.6
Excellent	3.9

The above descriptive analysis was obtained from the respondents' perception towards the impact of exploiting reader-text transaction of questioning the text onto the understanding of the text. Based on the findings, 50.2% of the respondents indicated that they perceived 'satisfactory' understanding of the text. Another 29.6% of the respondents indicated that their understanding of the text was 'good'. However, only 15.8% indicated 'moderate' understanding. The data suggests that respondents' understanding of the text could be enhanced if readers are able to engage meaningfully by questioning the text while undergoing the reading process. This could also mean that respondents perceive

this method as an effective means that they can employ to take control of their own reading process. Such skill ability is in tandem with the idea of achieving autonomous learning as posited by Wilhelm and Betty (2008).

Research Question 3: What are the students' responses towards the reading process of questioning of the text?

The analysis focuses on two aspects; the positive and negative responses from the 62 respondents after having undergone the technique of questioning the text. Thematic analysis of significant emergent patterns of the positive and negative responses were used to provide descriptive analysis as to how questioning the text of reader-text transaction were perceived by the students.

Positive responses

Taken from the positive standpoint, it is evident that there were many significant positive responses of using questioning the text. From the findings, majority of the respondents acknowledge that they are able to gain better understanding of the text.

Table 4: Strengths of questioning the text of self generated questions

- It helps when it comes to understanding of the text as I am able to think deeply and analyse the text.
- I think it is crucial to use to create new ideas.
- Reading process is more interesting and exciting.
- Can enhance my reading skills and gain better understanding of the material
- It is actually natural to have inner monologues with ourselves silently when we read text. At least, that is how I feel.
- I am able to relate my past experience or views. It is quite ironic how these text relate to me.
- I will not feel bored and in fact I believe my brain works better when reading this time.
- It can improve my reading skill and I hope to apply this in my other subjects.
- Able to think actively and I can give my opinion freely
- It helps to improve our thinking skill. I will use this in my reading after this.
- Able to sustain full concentration in the reading process
- It helps us to evaluate further understanding of the contents in the text.
- Able to stimulate our thinking process to understand the idea in the passage
- Able to think critically and analytically
- I have learned a new skill in the reading process.
- I can clearly manage and understand what I have read.
- Whenever I read, I always ask questions such as what, when, how, why, where to enhance understanding of the text.
- I always have problem when reading and understanding it.

- Questioning the text could get me connected with the text.
- When we question, it stimulates the thinking process and actually use both the right and left brain. This trains us to think in a creative way.
 - Able to understand the relationships of material in the text with personal experience
 - This is my first hands-on experience using questioning the text in reading. It helps me to improve ways for effective reading.
 - It helps me to understand, organise and explain the content material.

As indicated in Table 4, the respondents perceive that they are able to sustain full concentration and generate new ideas as they get connected with the text. Respondents believe that the reading process is more interesting and exciting because they are able to interact with the text freely. As such, students who exhibit keen enthusiasm towards the content material in the text are intellectually stimulated, and are able to take control of the reading process.

Negative responses

Students' responses indicate that questioning the text may slow down the reading process as quite a substantial amount of time has to be allocated for such interactions:

- It could slow down the reading process and decrease fun in reading
- It takes some time to have clear understanding of the text.
- Eventually seldom use it and at times I feel it is a waste of time and a bit irrelevant.

One student has his own way of reading and understanding a text and therefore, finds that questioning the text hinders his reading and understanding:

- Everyone has different ways to understand the text. I am not able to use questioning the text or self-generated question in this reading process.

Each student has his/her own learning style, and not all learners would be comfortable using this strategy. Perhaps, there are other interactive reading comprehension skills which would be better tailored to the various needs of this group of learners.

The negative responses were also triangulated with the overall observations obtained from the field notes of researchers as participant observers. Factors such as inadequacy of using the strategy, failure to understand the principle of reader-text transaction and the lack of emphasis on pedagogical input by teachers probably contributed to the negative responses. The respondents clearly voiced their awkwardness and ineptness in using the technique:

- I need to learn and practise this skill because I need time to understand before I can use it.

- There should be a slot for us to use it clearly.
- As for me, it is rather difficult to work on questioning the text as I have to struggle with terms used in the text.

It seems that a small number of respondents do not favour reader-text transaction using questioning the text as they may not be familiar with this strategy. The above qualitative dimension is of great significance because it provides insights into the respondents' experience of using this technique (Creswell, 2005). These negative responses do tell us that it would be a good practice to diversify and vary teaching methods when it concerns the teaching of text comprehension, as there are others who may not be comfortable with the reader-text transaction. These respondents may resist the reading process using such interactions. This could probably be due to students being very weak in the language and may not be able to make use of their background knowledge or experience to construct meaning. Such evidence is in line with the idea posited by Hoover and Turner (1993) whereby meaning making depends largely upon linguistic comprehension and cognitive ability.

Results of Semi-structured Interview

A semi-structured interview was also conducted on 10 selected respondents to cross validate the findings obtained from the responses of the 62 respondents. The semi-structured interview was primarily designed to triangulate and provide evidence that there is consistency in the judgement based on elicited input from the 62 respondents. In short, the central issue of conducting semi-structured interview is to provide high reliability index on the phenomenon using questioning the text in the reading process. The following are some common responses reflecting certain parts of the research questions:

- Able to broaden horizon as we see things from different perspectives
- Able to change your paradigm as ones horizon broadens
- Have different views that may change our paradigms
- Another voice and have to answer the inner voice
- Talk a lot of it means we are prepared to know the content material better
- As human beings we have to be brave and need to have guts to be different
- Need to analyse and be critical, not merely remembering of facts in the text
- Mind tends to stray as we think about the issue
- Wonder a lot and do not stay on track

From the semi-structured interview, issues from the research questions were discussed from a holistic perspective. It is discernible that the students agree that questioning the text has enhanced their understanding of the text. They feel that the reading process could be fun with the use of this technique as they are actively interacting with the text. In addition, the students reported experiencing a change in their paradigm as it broadens their horizon on certain issues found in the content of the material. For example, from the perspective of the significant impact, respondents from semi-structure interview mentioned that they are willing to make changes in lieu of differences in their opinions.

Such results from semi-structured interview are able to reaffirm the perception that respondents have a better grasp on the content material than before.

Taken from another perspective, one of the respondents from the semi-structured interview mentioned it helps one to analyse and be critical while reading the text. This respondent shared similar view with the other 62 respondents in which there was indication that such strategy has enhanced one's ability to reach out to higher thinking ability. In short, respondents are able to take control of the reading process as they are able to engage inner dialog with the text. Below is one of the transcribed texts:

It helps me a lot and I enjoy reading better. I will start to use the thinking skills in my other academic readings. Able to know that there are no exact answers for the questions. It is important to interact with the text as I am able to get evidence and know the relevant points. At times, I ask questions to clear doubts and provide opinions.

Observation by Researchers as Participant Observers

It is observed that the students are basically receptive of using questioning the text in the reading task. Majority of the respondents enjoyed the task using interactive text processing skill of questioning the text to engage meaningful interactions with the text. For example, there is sincere and earnest effort of the respondents in carrying out the task. Although the respondents were not used to the task of writing down their thoughts, the researchers note that many of the students are excited with the hands-on experience and enjoyed the process. Nonetheless, the researchers feel that a few respondents appear to be lost and do not really know what is expected of them. This may be due to the lack of exposure in the use of such interactive strategy in understanding a text as these respondents were given only a short briefing on the use of it. However, this problem could easily be resolved if they were given ample practice to accommodate such interactive text processing skill in the reading process.

Conclusions and Classroom Implications

Within the context of this study, the results indicate that the respondents' are receptive to the idea of using questioning the text in the reading process. This is inline with the contemporary theory and literature of reading that emphasizes the process of reading as a dynamic constructive process whereby the emphasis is on the reader using his/her personal background of experience to construct meaning through questioning the text. This sort of interaction can promote meaningful engagements between the reader and the text. But before this can be achieved, it would be good if the students are trained to use the technique of questioning the text with various texts that ranges from easy-to-understand to complex texts.

This study has also raised a number of important issues on those aspects related to interactive text processing skill of questioning the text. Reading does not have to be an uphill endeavour particularly if readers are made to understand the benefits of engaging

active interaction with the text (Manzo et al., 2001). From the findings it was justified that readers are more active, flexible and effective readers as they are able to activate their thinking skills when interacting with the text. In essence, emphasis should be placed on developing such interactive skills gearing towards the use of thinking skills in text comprehension. It is hoped that equipped with such interactive text processing skill of questioning the text, students will be in better control of purposeful learning with far reaching results in text comprehension. If students are not able to think and put forward their own questions, teachers or lecturers can guide them by giving certain words or phrases as clues. Also, expecting students to list many critical questions may be asking too much of the students, and therefore, perhaps the students can be asked to list down a certain number of questions that is within the students' capabilities.

The students' questions and responses given illustrate that different levels of questioning can stimulate different hierarchy of thinking skills. From the data elicited, there is evidence that thinking skills identified as literal, interpretive and applied levels as postulated by Ruddell (2001) are activated when students engage in questioning the text through reader-text transaction. Drawing from such findings, there is justification that the appropriate thinking culture could be simulated and its enhancement should be encouraged through questioning the text in reader-text transaction.

In the final analysis, elements of thinking culture should be infused and integrated into the curriculum so that students can be intellectually challenged to participate in a complex academic pursuits that require critical, analytical and creative skills. In short, the thinking culture could be cultivated and nurtured if educators as well as instructional designers understand the underlining assumptions using questioning the text in reader-text that caters for the needs of readers. Based on the discussion, a critical classroom with its pedagogical implication of using the appropriate materials or texts could enable active engagement with the text and stimulate learners at three levels of comprehension i.e. literal, interpretive and applied levels (Ruddell, 2001). In addition, teachers should be equipped with various teaching methods and approaches that would facilitate effective learning in terms of literal, interpretive and applied levels of comprehension.

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About the authors

Muhammad Kamarul Kabilan Abdullah is an associate professor at the School of Educational Studies, USM, Malaysia. His main research interests are the use of Internet for ELT, Teacher Development and Creative and Critical Practices in Language Teaching and Learning

Mak Kem Seng is currently, a senior lecturer in the Department of Language Studies, University Teknologi MARA at the branch Campus of Sungai Petani, Kedah His research interests include strategies in teaching and learning of English Language as well as classroom interactions.

Ooi Ae Kee is a senior lecturer at the Department of Language Studies, University Teknologi MARA Kedah. Her areas of interest include motivation, fossilisation and critical thinking in English Language Teaching and Learning.