

A Preliminary Study of Developing EFL Critical Reading: The Think Aloud Method

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Abstract

To most EFL learner-readers, critical reading can not only urge them to be active readers, but also guide them toward in-depth reading. Quite often, EFL learners face a diversity of decisions and make evaluations while reading English texts; therefore, the ability of critical reading is highly important. This paper is an attempt to present and justify the course guidelines, the skills and the activities which were exerted to impart critical reading of expository texts to EFL learners. From a qualitative perspective, the researcher employed the think aloud method and the semi-structured interview to collect student readers' responses. In addition, the research showed their reactions in conceptions, awareness, feelings and skills with regard to EFL critical reading. A few of the subjects' statements could be adopted to provide some pedagogical implications. Also, the critical reading skills, the inquiry questions, the propaganda techniques and the course guidelines were presented in this paper.

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Introduction

The technological revolution has caused the rapid rise of mass media. Inevitably, mass media have a great influence in our lives, behaviors and thoughts. Most of the time in life, we need to make a wide variety of intelligent decisions based on the material we read. For instance, we decide which products to buy, which information to trust, or which propaganda to support, and the like. Since EFL (English as a Foreign Language) learners are also faced with many decisions while reading English materials, they should have more accesses to developing or enhancing the critical reading skills.

In Taiwan, educators and researchers have been giving a great deal of concern about word perception and literal reading comprehension skills. The level is direct and uncritical reproduction of what has been read. However, many of the EFL learners remain unable to appraise and inquire English reading materials. Actually, they are rarely encouraged to make an evaluative interpretation. Thus, learners often concentrate on unknown words, grammar, syntax, and so forth. Mostly, they may try to explain every bit of data and finally get lost among so many details. In such a setting, they are viewed as 'laborious decoders' (Shieh,1992). Describing by a simile, they strive to put bits of a jigsaw puzzle together so as to figure out the answer. Finding the answer appears to be the terminal point of English reading. Whether the answer is logical may just go far beyond their attention. We are not arguing that the literal comprehension in EFL reading instruction is not important, and we are not proposing that one set of strategies or a particular training sequence can be employed completely to promote learners' critical reading skills. Our research goal is to call for instructors to develop critical readers in EFL or ESP (English for Specific Purposes for short) and to search for an effective instruction for critical reading.

According to Rocchio (1977), ESL college students possess English ability to a certain extent; and thereby instruction at the college level is effective in improving critical reading.' Along with the same vein, it is suggested that EFL learners at the college level need not only literal reading skills but also critical reading skills to reach the objective of professional English reading. Here we narrow down the dimension of the critical reading instruction to the expository text.

To develop EFL learners as critical readers, the instructor imparts the critical reading skills to the freshmen at the two-year nursing program in Kang Ning Junior

College. Simultaneously, in terms of literature review and the present study, the researcher explores what components can be integrated into the EFL critical reading process. The following research questions are designed to search for the answers:

1. How does the instructor facilitate EFL learners to read beyond literal texts?
2. Do EFL learners enhance their critical reading abilities after they receive the skills for critical reading?
3. What significant implications can be derived from the present study to improve critical reading instruction?

Literature Review and Course Guidelines

Over the last decades, many scholars have been making a good deal of research efforts in exploring not only literal comprehension but also a more thorough interpretation, or critical comprehension. Before we explore what critical reading is, it is essential to get an insight into the mental activities of English reading. As to the reading process, there has been a shifting paradigm from reconstructing the author's intended meaning to a psycholinguistic guessing game (Goodman, 1973). Goodman (1973) claims that reading is not a passive, but an active process in which the reader applies the graphic, syntactic and semantic symbols to predict or verify the predictions on the basis of his or her own knowledge and experience of the world. From this perspective, a reader is thus viewed as an active processor, not just a text decoder. In a similar vein, several researches have shown that second language reading was an active process, too (Carrell, 1982; Johnson, 1981; Widdowson, 1983). Carrell further points out that reader's background knowledge has a great effect on reading comprehension in a second language.

In some researches, background knowledge that fosters comprehension has been studied under the schema theory (Rumelhart, 1977; Carrell & Eisterhold, 1983; James, 1987). According to Rumelhart (1980), schema are viewed as "building blocks of cognition", i.e., the fundamental elements which all information processing relies on. A similar claim concerning schema is echoed by James (1987) whose study further shows that in the light of the schema theory, a proficient reader needs to exert the prior knowledge including linguistic knowledge, world knowledge of the text and knowledge of rhetorical structure of the text (Carrell & Eisterhold, 1983). Later on, the interactive model of reading processing puts together the two theories, bottom-up and top-down (Perfetti, 1985; Carrell, 1988). The advocates of the interactive theory maintain that efficient reading involves the interplay of both top-down processing strategies and bottom-up processing strategies. Generally speaking, readers with

limited L2 proficiency may tend to use bottom-up strategies (e.g., word-by-word reading, decoding and translation), whereas they can also compensate for lack of L2 proficiency by using top-down and interactive strategies (e.g., making predictions, employing background knowledge or experiences). Due to numerous factors placing alternative effects on the reading processing, a reader imperatively needs the instruction of strategy application. Some evidences from training studies (Hudson, 1988; Carrell, Pharis & Liberto, 1989; Moran & Williams, 1993; and Nuttall, 1996) indicate that readers can be trained to utilize strategies in order to monitor comprehension and evaluate reading materials. It is particularly necessary in the case of EFL learner-readers who often fail to grasp the gist of English reading materials. Some, because of their prior training in the grammar-translation method, go through the reading text from beginning to end and often pause to consult a dictionary for unknown words. Accordingly, their slow pace and the frequent interruptions turn to interfere with thinking in the reading process.

Teaching EFL or ESP learners to inquire or evaluate while reading is referred in the professional literature as 'critical reading.' Theoretically speaking, instructors should teach student readers how to deal with reading and even higher level of reading, not just go through the literal text (Burns, Roe & Ross, 1992). Moreover, Burns, Roe and Ross repeatedly emphasize that reading instructors should highlight reading skills and nurture learners' self-image as active readers. Hence, we explore what skills can be used to facilitate critical reading, in what roles the instructor should play to guide EFL learners to read critically and what learning atmospheres the instructor can create to motivate critical thinking while reading.

Although agreement about the definition of critical reading has not yet been reached and concepts of critical literacy in EFL reading are theoretically and practically limited, we still strive to collect a diversity of notions in relation to critical reading, further to study, to synthesize, and finally to present the working definition of critical reading. Essentially, critical reading involves appraisal, evaluation, selection, judgment or comparison of ideas during the entire process in contrast to only reproduction of the text meaning (Fllinger, 1976; Flynn, 1989; Collins 1993; Luke, 1995; Grady, 1997). In other words, critical readers engage in interpretive and evaluative thinking and deal with the literal meanings based upon background knowledge and previous experiences, reasoning and evaluating the facts and the implied ideas. Noncritical readers, on the other hand, are those who do little thinking in identifying clearly the facts and accept those facts unquestioningly. As Scott (1988) proposes, to think analytically while reading, to evaluate, to judge what is important or unimportant, what is relevant or irrelevant, what is in accordance with an idea in the light of prior knowledge or experience, constitutes critical reading ability.

To foster critical reading ability in the foreign or second language, the instructor can encourage student readers to read with a questioning attitude. Also, s/he can guide them to ask the following questions while they are reading expository texts. These questions are expanded and revised by the researcher on the basis of the set theory (Scott, 1988) and the five inquiry questions (Burns, Roe & Ross, 1992).

I. Objective

1. Why does the author write this material?
2. What is the main message?
3. Is the material up-to-date?
4. What is the intended readership for this text?

II. Background knowledge

1. Did you have the previous knowledge or experience you needed for the text?
2. Does the author bring out some previous knowledge of the subject?
3. What relation is there between title and illustration, or title and text?
4. What potential stereotypes do people have for the subject?

III. Viewpoints out of analysis and inference

1. Does the writer prove his or her point?
2. Do the facts support the argument?
3. Do the people and the facts mentioned really support the author's ideas?
4. Do you agree with the author's opinion? Which side do you agree with? Why?
5. Does the author write the material logically or emotionally? What logical or emotional details does he or she use?
6. Who or what was not mentioned? And what implications do the omissions have?

IV. Effects

1. What did you learn from the text?
2. What kinds of persons are likely to be influenced by the text?
3. Who benefits or loses by the publication of the text?
4. How do people benefit from reading the text?
5. Is the information or argument applicable here to us?
6. Does the text arouse any feelings in you (e.g., interested, confused)?

If the EFL learner is expected to read critically, it seems inadequate for the instructor merely to teach them to make conscious use of these questions mentioned above. We further study three facilitating factors: the classroom atmosphere, the instructor's role and the needful skills for critical reading. For critical reading to occur in the EFL classroom, the instructor must first create an atmosphere that fosters inquiry. According to Luke (1995), learners should actively engage in inquiring reading materials and realize their roles as text participants and text analysts in the process of reading. Moreover, it is vital for learners to realize they can feel free to

Significantly, the instructor should describe propaganda techniques to the class and model the process of locating these techniques in reading materials. Then learners can practice detecting these techniques by analyzing reading materials. In the study, EFL learners started up the application of the critical reading skills in expository reading. Here we use the reading materials in *Interaction One* (Kirn & Hartmann, 1996)—a reading skill textbook.

The Think Aloud Method

In the 1970s, the think aloud method was originally developed by cognitive psychologists to explore the mental activities of human beings. From cognitive psychologist's perspective, human beings disposed of the input information phase by phase and were able to verbalize their thinking process (Rankin, 1988; Chang, 1998). The notion placed a good deal of influence in literacy activities and researches. Olshavsky (1977) was the first researcher attempting to apply the think aloud method to the research of reading comprehension. She surveyed the comprehension strategies employed by 24 tenth graders to understand a short story.

Deegan (1995) pinpoints that the reader, in the think aloud task, is expected to let out ongoing commentaries about what they are aware of thinking and processing while they engage in a cognitive reading task. In particular, the method has two functional features. First of all, it can provide an access to get the insight of hidden process of reading. A variety of data on cognitive or affective processes can be derived through the method (Chang, 1998). Secondly, the data can be collected directly from readers' own perspectives because readers use their own words to report their thinking, and all the verbal reports can be recorded onto cassettes. For years, thinking-aloud has been gaining respect as a research method. Moreover, it is most appropriate to the task of providing maybe the most direct access to the mental processes involved in reading.

A good number of researches have been undertaken to identify the reading strategies through the think aloud method. Hosenfeld (1977) developed a think-aloud procedure in research on second language reading. Her study was an expository investigation of the strategies of successful and unsuccessful second language readers. In addition, Sarig (1987) employed the think-aloud and immediate introspection techniques to survey the relationship between first and second language reading behaviors of ESL high school students. However, very little research is done with EFL critical reading through the think-aloud method. In this study, we attempt to use the method to collect valuable information about the reader's thinking process that can rarely be revealed by outside observation or questionnaires.

Methodology

From a qualitative perspective, the study explores how the EFL reading instruction can improve learners' critical reading abilities. Thus, we attempt to exert the skills for critical reading, the classroom atmosphere and the instructor's role mentioned earlier in the literature review so as to attain the goal. The research method was designed to do qualitative analyses through the think-aloud method. In this section, subjects, materials, course activities and data collection will be described.

Subjects

To get an overall picture of EFL learners' responses to the instruction of critical reading, the researcher obtained two groups of subjects including high and low achievers respectively. A total of 18 subjects were selected from a sample of 179 EFL freshmen at the two-year program of nursing, based on learners' English scores in the entrance exam of two-year colleges. These subjects were the top ten and bottom ten percent of the 179 EFL learners. At time of the research, all the subjects had to take general English as a required, three-credit course, and had received the instruction of critical reading for a whole semester.

Materials

Generally speaking, the EFL instructor merely uses a single English textbook in class. Under the circumstances, it is certainly not easy to get adequate teaching materials to incur critical reading. Therefore, we strove to collect proper reading materials based on the level of difficulty, the familiarity of the subjects and the availability of the issues. Some expository texts including advertisements and news reports were adopted from newspapers and magazines. The rest of selected passages were elicited from the textbook—Interaction One, and all of the 179 EFL students were asked to identify the statement of fact and the statement of opinion. As mentioned earlier, the inquiry questions were integrated into the selected materials throughout the entire process. For this study, five texts were employed as instruments to explore learners' critical awareness while reading. The topics involve Smart Shopping, Different Laws in Different Places, Spenders or Savors, Cigarette Ads and Health.

Course Activities

In the class, learners were encouraged to become researchers and analysts of their own reading and to expand their repertoires of the critical reading skills. Essentially, the course activities designed in such a setting is learner-centered. In brief,

the course was organized as follows. At the prereading stage, the instructor exerted group thinking conferences to activate the advanced organizer (i.e., prior knowledge and experience), to make predictions based on previewing and to skim for the general idea. For example, EFL learners were asked to read the title and think about it or to associate illustrations or photos with the topic. Afterwards, the instructor imparted learner-readers with the skills for critical reading and gave several examples of the application of the skills. While reading, these learners were asked to use the inquiry questions earlier mentioned in Course Guidelines. Finally, the instructor encouraged learners to respond to the text, to make inferences, to draw conclusions or to bring out evaluations at the postreading stage. Meanwhile, they were required to report what they thought about reading articles within their small groups.

Data Collection

In the hope of acquiring informative data for study, the researcher adopted the mixed method of extreme case sampling and stratified purposeful sampling, as used in Platten's (1990). Based upon the sampling strategies, the researcher recruited two groups of subjects falling into two categories: high achievers with competent English reading abilities and low achievers with poor English literal abilities. At the very beginning of the course, EFL learners received the instruction of critical reading skills and further, some examples were presented to demonstrate skills of distinguishing fact from opinion, checking the timeline, identifying propaganda techniques, and the like. They were accordingly exposed to the selective reading texts. Then each subject had a semi-structured interview with the researcher. First, the researcher did some preliminary thinking-aloud training in views of Rankin's guidelines (1988): each subject was requested to read a short passage critically at a time, telling what was going on inside her head as she was reading. Meanwhile, the researcher proposed the list of inquiry questions to the subjects and remained silent. At the postreading stage, the researcher kept questioning the subjects "What do you do when you come to something challenging the author's ideas?" Throughout the think-aloud process, the face-to-face interviews were audiotaped so as to provide research data.

Findings and Discussion

In practice, the EFL instructor may often come across learners who report having understood every single sentence in a paragraph of a reading text, but not a particular point, main idea or value which the paragraph conveys in the text as a whole. Accordingly, we attempt to impart the critical reading skills to EFL learner-

readers, and to further scrutinize the effectiveness of the instruction. In this section, learners' thinking and reactions to the instruction were elicited and interpreted in the light of the audiotaped interview. Furthermore, their responses were translated into English to give equivalent meanings, and were integrated throughout this section as they reflected on progresses in their conceptions, awareness feelings and skills with regard to EFL critical reading.

In general, several of the subjects perceived lack of English proficiency (vocabulary, grammar) as the biggest obstacle to English reading and had a sense of insecurity about their reading. The finding from the initial data is certainly no surprise to EFL reading researchers and instructors. Furthermore, S4, S6 and S14 in the group of low achieving showed that they struggled at a sentence-by-sentence level and had difficulties getting overall meanings of reading materials. As a result, they assumed it was not useful and practical for them to do further analysis while reading English. As S4 reported:

...I hate English since I was in junior high... I have stressfully made efforts and spent a lot of time to recite vocabulary and the whole text by rote. But it was still very hard for me to memorize English words. ...Later on, I've given up learning English... Not to mention, I could read English and analyze reading materials. ...But because I'm worried I might be flunked, I tried my best to study English. ...I read English at a very slow pace because I have many unknown words. ...In fact, it is more important for me to have a big size of vocabulary and realize grammar. I paid less attention to considering whether the author said something correct or incorrect before. But I sort of change the notion now.

And S6 said:

I read English articles only for homework. I usually read with the dictionary beside me. ...I like to read Chinese novels, magazines or newspapers, but I just cannot feel the same way in reading English. Because I have to look up in the dictionary for many times. That is time-consuming and bothering. Rather, I can read Chinese articles smoothly and spend more time thinking about the issues in articles.

Perhaps the strongest and most common statement that emerged over and over again was that some of the subjects in both groups disliked English reading and did it only for school reasons. Moreover, they said they could not think or feel when they read English texts because the belief that they had to know all the words in order to understand the reading made them lose interests in reading. Seemingly, the lexical dimension of the texts was considered as a major obstacle towards reading and thinking. Rather, S9 made the striking statement that she often skipped unknown words and just read on. She further pinpointed:

I just got some ideas that are important although I didn't necessarily know every single word in the articles... Sometimes I read some interesting articles such as Smart Shopping. Then I

do some thinking as I am reading...Thinking about opinions of the author or of my own. ...
[What if you read an article you are not interested?]... Uh, I browsed it over casually. For
example, when I read about Consumer Protection Laws, it was very likely that I got lazy to
do thinking...

Obviously, she turned to be intellectually lazy while reading was fairly dry, dull
to her. On the other hand, there was more feasibility of enabling her to read critically
when teaching materials stimulated her interests in reading. She indicated the group
thinking conference could bring out some ideas and interesting talking. Also, she
liked to discuss with her classmates, which made English reading more lively and
enjoyable.

To provoke critical awareness, it is essential for the student to develop an open
attitude and to change stereotyped thinking. S3 in the high-achieving group described,
“I often accept what is being said in an article, without doubting its truthfulness.” This
is very true, in particular, when the student has no relevant background knowledge or
prior experiences. She would accept the validity and the value of reading texts.
However, student readers should be informed that authors’ attitudes and ideas are not
always neutral, and do not always convey the realities of the world. They should be
reminded that these days many people are trying to sell their products, methods, ideas
or even biases and that if an author wants a reader to agree with him, he will use all
possible methods to convince readers. More interestingly, S2 in the low-achieving
group mentioned:

Most of the time, I am concentrated on the meanings of the article as I am reading English
texts. ...Mainly, I must understand the contents of the reading materials. In fact, critical
reading did not help me realize the meanings of articles better. Besides in our exams or
quizzes there were no items that asked us to exert critical reading, either.

Since most English studies and exams did not involve critical reading, S2
appeared to fall short of motivations to appraise her own readings. Like some other
students, S2 said as she was reading Chinese texts, she rarely made any judgements,
either. She also indicated that she remained the same attitude toward either Chinese or
English reading. To her, Chinese reading habits of S2 influenced the way she read
English materials. In contrast, S5 in the high-achieving group offered the following
impressive excerpts:

At the beginning, I have ever questioned the objective of critical reading. I asked myself,
“What do we need to read critically for?” when you introduced it to us at the outset of the
course. ...I used to read like sweeping across the surface of the reading texts...and do little
thinking about intentions of an author or accuracy. I believed that understanding the
meanings of each paragraph and grasping the crucial information were my goals. Right now,
I get to engage myself in a sort of in-depth reading, though.

Interestingly, S5 created the term 'in-depth reading'. Taking a further step, the researcher asked her about what her in-depth reading was and how she felt about it. She simply responded that it meant one had to use one's brains while reading English texts. Furthermore, she was very glad she could do more analysis in reading contents than ever before. Similarly, another positive comment was made by S7. She said the inquiry questions could lead her to think more and to get more from the material she read.

A few of the interviewed students expressed their anxiety when they participated in the group thinking conferences. S1 revealed she felt pressured while she was stating her own views either in front of her group members or in class. She further explained she felt uncomfortable when she faced controversial issues and saw continuously debating among her classmates. Another striking example is that S8 mentioned group members tended to discourage less assertive opinions, which made her somewhat uneasy. She said it seemed vital to conform to group members while approaching to report their decisions and conclusions. Under the circumstances, peer pressure and conformity could be deterrents for her to arouse critical awareness.

Closely related to subject's affective domain, another remarkable comment was about how well she perceived herself as a competent critical reader. S11 described as follows:

I never heard of the issue of critical reading before. It was quite natural for me to agree or disagree with author's viewpoints based on my own ideas. However, I knew I held a passive attitude toward reading English texts. ...After realizing what critical reading is, I found English reading more and more challenging. I enjoyed discussing with others and expressed my own ideas or feelings. ...Occasionally, I beat my brain but just figured out nothing. The inquiry questions helped me more or less to do thinking. But that was a long list of the questions. I could not memorize them all...Most importantly, I felt confident and had control of my own readings...Shifting from a role of a passive information receiver to an active analyst made me feel more like a powerful English reader.

Finally, some commentary excerpts and examples were here extracted from the interview to reveal their cognitive activities and pragmatic application of critical reading skills. S3 of the high-achieving subjects showed her personal example of identifying author's stance as follows:

"Is it better for people to spend their money or save it?...In the United States, one sign of a good economy is when consumers spend a lot of money and buy expensive items such as computers and video cameras...when people feel good about their jobs and are able to pay their bills, they buy more things." S3 read out loud the passage, but she said, "I don't know economy very well. But if a person always leads a luxurious life, what will he do when a mishap happens to him? ...For instance, what if he loses his job? So, I think it is better for

people to save their money. Moreover, most people do not spend or save money under the consideration of the societal economy. I'm wondering that the author may be an economist. From an economic perspective, he talks about the issue."

Also, S3 reported because the inquiry questions could be considered as guidelines for thinking and reading, many ideas that she did not ever think of came to her mind. She said her brains might get rusty as she read nothing and thought nothing.

Not surprisingly, many of the subjects had no ideas about how to detect facts from opinions. S7 claimed it was interesting, but not as easy as one believed, to tell facts from author's individual opinions, as revealed in the following quote:

"In California, which has the strongest law, smoking is illegal in all restaurant and public buildings" I would say this is a fact except the part –the strongest laws because I am not sure if there are much stricter laws against smoking in the world. ...Sometimes there is no key word that can be referred to detect facts from opinions...

Likewise, S1 said it was not a simple task to diagnose what facts were and what statements were tricky, especially when she did not pay attention to author's intents or standpoints.

Occasionally, the skills for critical reading were utilized to shun away reading hassles. In the case of S6 in the low-achieving group, she had difficulties in clarifying the meanings and the implications of the following passage:

"Never shop food and go into the supermarket hungry!"—I don't know the main meaning of the sentence for sure. I guess many people go to the supermarket because there are cleaner foods over there. Moreover, it is very convenient for people to buy almost all of the food they need.

In the think-aloud process as well, it was evident that a few of the subjects did well in the application of the critical skills. For instance, S7 grew fairly skilful with the propaganda techniques. Her performance is illustrated by the following excerpts:

"Discover the new world of healthier eggs from hens fed on a totally vegetarian diet."—I know the word 'vegetarian'... Now many people are vegetarians. Not because of their religions. It seems that 'vegetarian' means healthfulness... I am wondering if the writer uses a certain technique in this advertisement. He tries to associate vegetarian with healthfulness...Does that mean those eggs contain less cholesterol?

From a functional perspective, the interviews also suggested, these subjects could promote their abilities of problem solving via critical reading. They clarified information, detected propaganda and made evaluations in reading materials, and lastly they figured out some ideas to solve problems. A couple of the subjects unexpectedly presented their successful examples of utilizing the skills. The

following excerpt illuminates S13's attempt:

I think the ads for cigarettes are very interesting. In ad 1, a man in tuxedo held a lit cigarette. The ad says, "For the man on the way up." ... I guess it is self-image related. It attracts some men who like to dress well and to have promising jobs. This reminds me of a certain technique you have taught us...

Another example elicited from the interview with S5 is presented as follows:

"In addition, scientists can change genes: Not only can they change the structure of DNA, but they can also put genes from one organism into another."—I think the sentence is a little complicated. I just skip the part of 'not only can they' and grasp the parts of 'scientists can change genes.' So, I guess scientists can change DNA and use the new DNA to change [the genes of] organs. "In the future, therefore, scientists may raise animals for the purposes of organ transplants for humans." I've heard that some doctors used pig's livers to replace human's and to save lives. This situation will become more and more common... The issues of organ transplants comes to my mind while I'm reading the article. I would try to list all of the pros and cons of using animals' organs to figure out a good solution.

Conclusion

Just like other qualitative researches, this study did not try to make any generalizability; however, the findings of the study did provide several informative insights in EFL learner-readers' attitudes, stances and application to critical reading. Most of the sources suggested that high-achieving interviewees took positive attitudes toward the instruction of critical reading. In some cases, the subjects suggested critical reading could be a dynamic process of interpretation of reading texts. That is, they did critical thinking, challenged the conceptions in reading texts, discussed with others, compared to others' thinking, made inferences and evaluations, or even attained the purpose of problem solving. In others, several low-achieving subjects were stuck in reading comprehension. Additionally, critical reading appeared to be arduous and poorly paid for their English study. Another point worthy of note in the study has to do with subjects' emotional involvement such as peer conformity and an expectation to avoid controversy. In essence, the instructor is unlikely to completely eliminate emotional involvement from critical reading. The emotional factors can be minimized for the process of critical reading, though. It is thus suggested, EFL learner-readers need to be aware that emotional factors are involved in their evaluations of reading materials. They can also be brought to the reasoning point where they understand why they evaluate the reading texts in their ways.

A few major limitations in this research are here discussed. First, it is not easily accessible for the instructor to acquire ample and proper reading materials for teaching the skills while s/he is only using a single textbook. Secondly, although the outcomes of the interviews show slightly discrepancy between low-achievers' and high-achievers' reactions to critical reading, it is better not to jump into the conclusion that the low achieving readers tend to be less competent in cognitive or metacognitive activities. Some complicated factors like those in emotional or habitual aspects should be taken into account. At last, the outcomes of the study are only parts of an ongoing research. To secure an overview of critical reading, the future research will investigate the pragmatic demands of a majority of EFL learner-readers via quantitative questionnaire survey.

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運用有聲思考探究英語學習者 Critical Reading 之發展

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本研究之主要目的在探究 EFL (English as a Foreign Language) 學習者的 critical reading 能力及其發展。研究者採用質性研究方式，應用有聲思考(think aloud)和指導式晤談(semi-structured interview)兩種方法，來收集和了解學生直接的反應，以及他們的發展情形。研究對象以護理科二專新鮮人為主體。文中研究者說明並介紹有關 critical reading 的技巧以及 propaganda techniques。另就選文部分，研究者亦作簡要的運用說明。最後研究結果提出研究對象對 critical reading 的概念和技巧的反應及感受。這結果即可作為英語閱讀教學者之參考，並引導和培養英語學習者作深度的閱讀(in-depth reading)。期待學生因此能抓住英語閱讀之主要目的，以培養日後獨立閱讀之基礎。最後，筆者提出該研究的限制作為討論和延續發展之用。