DEVELOPING CRITICAL THINKING SKILL THROUGH
TEXT STRUCTURE IN ESL READING CLASSES

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DEVELOPING CRITICAL THINKING SKILL THROUGH
TEXT STRUCTURE
IN ESL READING CLASSES

By

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Thesis submitted to the School of Graduate Studies, Universiti Putra Malaysia, in
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DEDICATION

This thesis is dedicated to my family.

To my beloved husband,
Mohammad Reza Ghobadi,
Who provided all the support and inspiration that I needed during the tenure of my study

&

To my loving daughters,
Bahar & Ghazal
For their immense sacrifice and helping me to understand how to be good mother and an accomplished professional
The main purpose of this experimental study was to determine the effects of awareness of the structure of the text on enhancing critical thinking skills in Malaysian undergraduate ESL reading classes. A comparative study of two groups; namely Experimental and Control group were involved in this study. The study was conducted at Universiti Putra Malaysia (UPM) with total participants of thirty-two students who were randomly sampled.

An experimental pre-test post-test study was conducted to investigate the objectives of the study. At the initial stage of the study, the test of English reading proficiency (TOEFL) was administered to the participants. The scores were used to categorize students into three levels of proficiency in reading skills: good readers, intermediate
and low readers as used in the TOEFL test. The participants were then divided into two homogenous groups: the Experimental and control groups. Each group was having the same number of readers with different reading proficiency level. In the pre-test, all participants from both groups (experimental and control) sat for a reading comprehension test using a reading passage. Three questions were posed based on the passage: two questions tested the analyzing skills of the participants while one question tested the participants' creative skills. This was done by asking the participants from both groups to write the topic and the main idea of the passage as well as writing the summary of the passage. The experimental group (N=16) was given instructions in how to find the main idea of the texts, using text structures for the purpose of utilizing the ‘analyzing’ and ‘summarizing’ skills while reading the expository texts. The control group (n=16), on the other hand, was given the traditional instruction while handling the texts. A Post-test was conducted for both groups after the instructions, which were conducted in 10 sessions.

Independent t-test and Paired sample t-test were used to analyze the data. Data analysis showed that the students, who received instruction on how to analyze and summarize the text using text structure strategy, had better performance in applying critical thinking skills while reading (M=59.53) as compared to the control group (M=36.25). The results of the paired sample t-test showed that the differences were indeed significant; t(15)=7.64, p=0.000 (p<0.05).
The results showed a significant difference in distinguishing the main idea from supporting details as well as summary writing between the experimental group’s performance and the control group’s. Experimental group showed significant improvement in the Post-test (M=2.59) over the Pre-test (M=1.74) in answering question number 3. The lower standard deviation in Post-test (SD=0.78) over Pre-test (SD=0.88) indicated that the improvement was evenly distributed in the group. The main focus on the students’ summary writing was to differentiate the main idea as well as the important details in their summaries.

The results of the study stipulated the fact that the ‘critical thinking’ skill was found to be strongly enhanced in English reading classes by having direct teaching of ‘analyzing’ and ‘creating’ skills.
Objektif utama kajian ini adalah untuk mengenalpasti kesan-kesan kesedaran dalam struktur teks bagi meningkatkan kebolehan untuk memikir secara kritikal di kalangan pelajara-pelajar Universiti Malaysia di kelas pembacaan bahasa Inggeris. Satu kajian perbandingan antara 2 kumpulan: Kumpulan Eksperimen dan kumpulan control telah dijalankan. Kajian ini telah dijalankan di Universiti Putra Malaysia (UPM) dengan jumlah peserta sebanyak 32 orang yang di pilih secara rawak. Eksperimen pra-pengujian dalam selepas pengujian telah di jalankan bagi menyiasat objektif kajian. Pada peringkat awal kajian, pengujian kemahiran pembacaan bahasa Inggeris (TOEFL) telah dijalankan pada para peserta. Perhitungan yang di gunakan bagi membagahi pelajar-pelajar kepada 3 kelas kemahiran kebolehan pembacaan: pembaca baik, sederhana dan pembaca lemah seperti yang digunakan dalam peperiksaan TOEFL.

VI

Kumoulan eksperimen (N=16) telah diberikan panduan untuk mencari idea utama teks dengan menggunakan struktur teks bagi tujuan menpergunakan secara sepenuhnya kemahiran menganalisis dan ringkasan ketika membaca teks expositori. Kumpulan kawalan atau control (n=16) pula telah diberikan arahan secara tradisional bagi menangani teks tersebut. Suatu kajian telah dijalankan di atas kedua – dua kumpulan selepas selesainya 10 sesi arahan.

Ujian t-test berdikari dan ujian sampel t-test telah di gunakan bagi menganalisis data yang di perolehi. Analisis data menunjukkan bahawa para peserta yang menerima arahan untuk cara menganalisis dan membuat ringkasan teks menerusi strategi struktur teks mempunyai pencapaian yang lebih baik dalam menggunakan kemahiran pemikiran secara kritikal ketika membaca \( (M=59.93) \) berbanding kumpulan kawalan/ kontrol \( (M=36.25) \). Keputusan kajian
menunjukkan perubahan yang ketara dalam membezakan idea utama dengan idea sokongan serta penulisan ringkasan di antara pencapaian kumpulan eksperimen dan kumpulan kawalan/ control. Pemikiran kritikal telah dikenal pasti wujud dalam kelas pembacaan bahasa Inggeris dimana pengajaran untuk ‘menganalisa’ dan ‘mencipta’ di ajar secara langsung.
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In the name of Him the merciful, the companionate

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spent away from them. Those years are lost from my life that I can never get back; this sacrifice is beyond anything and everything in this world.

Above all, I am grateful to Allah the Almighty, for his blessings, love and care.
I certify that an Examination Committee has met on data of viva voice to conduct the final Examination of Maryam Heydari on her master of science thesis entitled “Developing critical thinking skill through text structure in ESL reading classes” in accordance with Universiti Pertanian Malaysia (higher Degree) Act 1980 and Universiti Pertanian Malaysia (higher degree) Regulation 1981. The committee recommends that the students be awarded the Master of Science.

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Date: 15 July 2010
DECLARATION

I declare that the thesis is my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously and it is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

Maryam Heydari
Date: 30\textsuperscript{th} March 2010
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CHAPTER I

INTRODUCTION

1.1 Background

The demands of our increasingly complex world make the need of thinking clearly more necessary than ever before. There are times we have all wished that we could remember better, comprehend complex information more fully, or solve problems more quickly and more easily (Halpern, 1997). In other words, the ability of thinking critically has become an integrated part of modern society. As an individual living in this society, we have to be able to have a closer look at the events happening around us.

1.1.1 Critical thinking

“When we think critically, we are evaluating the outcomes of our thought processes – how good a decision is or how well a problem has been solved” (Halpern, 1997).

Literature on critical thinking relates ‘Critical thinking’ to the use of those cognitive skills or strategies that increase the probability of a desired outcome. It also relates to individual’s conscious attempt in deciding what to do or to believe by focusing one’s thought on it. In the process of thinking critically, we are deliberately focusing on the results of our action and we are trying to evaluate it.
1.1.2 Critical thinking and reading

In reading, critical thinking is involved in evaluating the text that the learner is reading. As Graney (1990) believes that Critical reading needs that, reader evaluate the text he is reading. Wallace (1996) is also defining critical thinking in reading as it maps what is demonstrated in the text against our own knowledge and experience. Moreover, the expected outcome of reading is comprehension and researches have shown that in academic studies, deep comprehension capabilities are needed to be enhanced. According to Dorn & Soffos (2005) deep comprehension needs readers to plan, select, direct, and orchestrate the various cognitive structures and processes available to them to obtain a specific goal. In other words, the reader should deliberately choose strategy to understand the meaning of the text in order to comprehend better. This is what some researchers have also labelled it as “Critical Reading”.

According to Gray (2006), “Since critical thinking is needed to achieve critical reading performance, strategies that advance critical thinking could support and enhance critical reading pedagogy”. Emphasis on problem solving and other active learning pedagogy are implemented to enhance critical thinking (Lauer, 2005). Dorn & Soffos (2005) have introduced some effective strategies for assessing deep comprehension. Some of them include predicting, inferring, visualizing, connecting, analyzing, summarizing, synthesizing, skimming, critiquing and reflecting. Their suggested strategies are aligned with Bloom (1956) hierarchy levels of thinking, which involve critical thinking ability. They
also believe that these strategies are aimed toward enabling the reader to construct meaning from a given event.

1.1.3 Critical thinking ability and text structure

In defining reading comprehension Nimmo (2008) argues that “Reading comprehension much like verbal communication, involves the ability to think critically about the author’s message so the exchange of ideas and the creation of the new ideas can continue.” In other words, reading is complex task which needs not only reader’s knowledge about the vocabulary, grammar of the target language but it also require reader’s analyzing, synthesizing and evaluating ability.

Reading according to Meyer et al. (1989, pp 3&4), can be viewed as an interaction among three variables: Reader variable, such as verbal ability and world knowledge, Text variable, such as text structure and Task variable such as telling all you remember from what you read or solving a problem with the information read. They believe that reading cannot be a successful process, just by devoting reading skill to any one of these variables. However referring to the review of the literature is showing the fact that mostly reading classes are devoted to reader’s variable rather than task variable or text variable.

In clarifying the meaning of text structure, Meyer et al. (2001) defines the structure of a text as the organization that binds it together and give it an overall
organization. Meyer gathered evidence for five basic ways to organize discourses: Collection, Description, Causation, Problem/Solution and Comparison. Students who are able to identify and use these top-level structures remember more from their reading than those who do not (Meyer, 1980). According to Jung-Hee (1992), a number of training studies have demonstrated that explicitly teaching readers about expository text structure can significantly facilitate reading comprehension. He also added that comprehension can be improved by teaching various strategies for identifying and utilizing that structure during the reading process.

Based on what has been mentioned on critical thinking ability and its effects on reading, the study focused on direct teaching of text structure as an independent variable. The teaching instructions implied analyzing and creating abilities in readers. The main objective of the study is to enhance critical thinking ability by giving awareness on how the students can make interaction between themselves and the text by analyzing or trying to summarize it.

1.2 Statement of the Problem

Although educators and psychologists have been guiding research on different aspects of reading skill (e.g.; Alderson & Urquhart, 1983; Johnston, 1983; Thorndike, 1917), there are still controversies about what the reading instruction should be. Some researchers believe that college students’ purpose of reading is learning from their textbooks (Self, 1997). Hence the college books are often in
expository materials and moreover, based on Williams (2004), as expository
texts seem to be more difficult than narrative texts, we can observe students lack
of understanding while they encounter those texts. One reason can be
mentioned about the difficulty of expository texts based on Stein & Trabasso
(1981) is that the relation between events that are demonstrated in expository
text is not the same sequence of familiar events that readers can see in many
narratives, since in expository texts, abstract logical relations are depicted.

Based on the review of the literature, one reason of students’ failure in the
academic area is for their inability to recognize the structure of expository texts
and consequently their lack of comprehension in their readings. It is obvious that
there will be a need for giving them awareness in that area. In fact many studies
have been done in this area are showing the relationship between text structure
and students reading comprehension. For example Dickson et al. (1998)
mentioned about 17 studies, which closely evaluated the relation between text
organization and comprehension. Based on their investigation, they discovered
that knowledge of text organization affects comprehension mainly in indentifying
and recalling of the most important information in a text.

Regarding text structure awareness, Farrell (2009) argues that making EFL or
ESL learners aware of how text are organized also helps them with their reading
fluency, comprehension and efficiency. He also suggests that we specifically
teach EFL or ESL learners how different texts are structured and organized and
even how paragraphs are organized and cohesive.