



UNIVERSITI PUTRA MALAYSIA

**DEVELOPING CRITICAL THINKING SKILL THROUGH
TEXT STRUCTURE IN ESL READING CLASSES**

**MARYAM HEYDARI
FPP 2010 8**



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TEXT STRUCTURE
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By

MARYAM HEYDARI

**Thesis submitted to the School of Graduate Studies, Universiti Putra Malaysia, in
Fulfilment of the Requirement for the degree of Master of Science**

March 2010



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



Abstract of the thesis presented to Senate of Universiti Putra Malaysia in
Fulfilment of the requirement for the degree of Master of Science

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Chairman: Ghazali Mustapha, PhD

Faculty: Educational Studies

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 in to 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 (\underline{M} =59.53) as compared to the control group (\underline{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.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan Ijazah Master Sains

**MEMBENTUK KEMAMPUAN PEMIKIRAN KRITIKAL MELALUI STRUKTUR
TEKS DALAM KELAS PEMBACAAN BAHASA INGGERIS**

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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 di jalankan. Kajian ini telah di jalankan 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 membahagi pelajar-pelajar kepada 3 kelas kemahiran kebolehan pembacaan: pembaca baik, sederhana dan pembaca lemah seperti yang digunakan dalam peperiksaan TOEFL.



Kemudian kumpulan-kumpulan ini telah di bahagi kepada 2 kumpulan yang sama: Kumpulan Eksperimen dan kumpulan control. Dalam peringkat pra-ujian, semua peserta dari kedua-dua kumpulan telah menduduki ujian bacaan pemahaman menggunakan satu teks bacaan. Tiga soalan telah diberikan berdasarkan teks bacaan tersebut.: dua soalan menguji kebolehan menganalisa peserta dan satu soalan yang menguji kebolehan kemahiran kreatif peserta. Ianya telah dijalankan dengan meminta para peserta dari kedua-dua kumpulan untuk menulis ringkasan bagi teks tersebut.

Kumpulan eksperimen (N=16) telah diberikan panduan untuk mencari idea utama teks dengan menggunakan struktur teks bagi tujuan mempergunakan secara sepenuhnya kemahiran menganalisis dan ringkasan ketika membaca teks ekspositori. 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 (\underline{M} =59.93) berbanding kumpulan kawalan/ kontrol (\underline{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.



ACKNOWLEDGEMENTS

In the name of Him the merciful, the companionate

This research study would not have been possible without the support of many people. I would like to express my sincere gratitude to my supervisor, Dr. Ghazali Mustapha who was abundantly helpful and offered invaluable assistance, support and guidance. My deepest gratitude is also due, to the member of the supervisory committee, Prof. Dr. Jayakaran Mukundan. I would like to express my gratitude to Prof. Dr. Bahaman Abu Samah for his invaluable assistance and guidance.

Special thanks also to all my graduate friends, especially; Ms. Masoumeh Akhondi, Dr. Faramazh Aziz Malayeri for sharing the knowledge and invaluable assistance. Not forgetting to thank my best friends Ms. Rekha Prakash, Ms. Fatemeh Ebrahimi and many more who were always there for me. I would also like to appreciate the students who participated in this study.

I wish to express my love and gratitude to my family; for their understanding & endless love, through the duration of my studies. My beloved husband, Mohammad Reza Ghobadi needs very special thanks for his patience and his supports during my studies. He was always the source of my inspiration. Special thanks goes to my parents and parent-in-laws for their understanding, and to my daughters, Bahar and Ghazal, who made tremendous sacrifice for me. I will never get back the years that I



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.

X



I certify that an Examination Committee has met on **data of viva voce** 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: 30th 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.

