UNIVERSITI PUTRA MALAYSIA

EXAMINING COMPREHENSION STRATEGY-USE VIA THINKING ALOUD AND COMPREHENSION VIA RETELLING: A COMPARATIVE STUDY OF PROFICIENT AND LESS PROFICIENT ESL READERS AT MATRICULATION LEVEL

TING SU HIE

FPP 1995 4

EXAMINING COMPREHENSION STRATEGY-USE VIA THINKING ALOUD AND COMPREHENSION VIA RETELLING: A COMPARATIVE STUDY OF PROFICIENT AND LESS PROFICIENT ESL READERS AT MATRICULATION LEVEL

By

TING SU HIE

Thesis Submitted in Partial Fulfilment of the Requirements
for the Degree of Master of Science in the
Faculty of Educational Studies,
Universiti Pertanian Malaysia

July 1995

UPM

DEDICATION

This thesis is dedicated to

Jesus Christ my Lord,
whose love carries me through this difficult,
yet enriching learning experience

my grandfather, parents, brother and sisters,
who made do with the little time I spend with them

the loving memory of my grandmother,
who instilled in me a love for academic pursuits.

ACKNOWLEDGMENTS

My heartfelt gratitude and appreciation goes to members of my supervisory committee for their dedication and commitment to excellence in overseeing the birth of this thesis: Dr. Sali Zaliha Mustapha, the chairperson, for her constant guidance in my venture into reading research; Profesor Madya Dr. Sharifah Nor for perfecting my research design; and Dr. Rosli Talif for broadening my perspective on crucial aspects of this research.

Special thanks go to Mr. Jayakaran Mukundan, the coordinator of the English Language course (MI001) for the Science Matriculation programme, for his kind assistance in administering content validity questionnaires to MI001 instructors, and Dr. Othman Mohamad and Dr. Abdul Majid Mohd. Isa for their enlightening advice on statistical analysis. I am full of gratitude to the Semester 1 (1994/95) Science Matriculation students who have willingly participated in the research and to Encik Azman Mohamad for his patience in helping with the recording of the verbal data.

My perseverance in completing this thesis is due in part to Lee Poh Le and Ho Sook Wah who have given insightful comments, steadfast encouragement and ceaseless assurance of my ability to carry on to completion the work which I have begun.

TABLE OF CONTENTS

ACKNOWLEDGMENTS iii
LIST OF TABLES viii
LIST OF FIGURES ix
LIST OF ABBREVIATIONS x
ABSTRACT xi
ABSTRAK xiv

CHAPTER Page

I INTRODUCTION

Background of the Research Problem 1
Statement of the Problem 5
Objectives of the Study 7
Significance of the Study 9
Limitations of the Study 11
Operational Definition of Terms 13
English as a Second Language (ESL) . 13
L1 and L2 13
Proficient ESL Readers (P readers) . 14
Less Proficient ESL Readers (LP readers) 14
Comprehending 15
Comprehension (Reading Comprehension) 15
Comprehension Strategies (Reading Strategies) 15
Categories of Comprehension Strategies 15
Idea Units 17
Background Knowledge 17
Conclusion 17

II REVIEW OF RELATED LITERATURE 19

What is Reading? 20
Bottom-up Conceptual Framework of Reading 20
Top-down Conceptual Framework of Reading 21
Interactive View of Reading 23

Page

Use of Comprehension Strategies 26
Metacognitive Strategies 26
Cognitive Strategies 29
Think Aloud: Observation of Comprehension Strategy-use 35
A Memory Model 40
Mental Translation in Second Language Reading 43
Reading Comprehension 47
Content Selection 48
Retelling: A Reading Comprehension Measure 49
Conclusion 52

III METHODOLOGY

Subjects 54
Instrument: Test of Reading Skills ... 55
Adaptation 56
Content Validity 57
Material: Think-aloud Text 60
Procedures 63
Pilot Study 63
Selection of Participants 64
Method of Data Collection 65
Practice Session 66
Concurrent Reading and Thinking Aloud 67
Oral Retelling 68
Method of Data Analysis 69
Comprehension Strategies 70
Comprehension 71
Conclusion 73

IV ANALYSIS AND DISCUSSION OF FINDINGS

Framework of Analysis 74
Comprehension Strategy-use 75
Metacognitive Strategies 80
Bottom-up (Cognitive) Strategies ... 91
Top-down (Cognitive) Strategies ... 102
Conclusion on Comprehension Strategy-use 116

Page

Reading Comprehension Measure 118
Comprehension Level 118
Types of Idea Units Recalled..... 124
Conclusion on Comprehension 132
Conclusion on Comprehension Strategy-use and Comprehension 134

V SUMMARY AND CONCLUSIONS 136

Findings of the Study 137
Pedagogical Implications 138
Recommendations for Further Research .. 142
Conclusions 143

BIBLIOGRAPHY 146

ADDITIONAL REFERENCES 154

APPENDICES
A Test of Reading Skills 159
B Operational Definition of Comprehension Strategies for Think-Aloud Protocol Analysis 167
C Questionnaire for evaluating suitability of Test of Reading Skills . 182
D Questionnaire on Reading Preference ... 183
E Think-aloud Text 184
F Questionnaire for evaluating suitability of Think-Aloud Passage 186
G Directions for Think Aloud and Retelling procedures 187
H Reading Passage for Think-Aloud Practice Session 188
I Sample of Coded Think-Aloud Protocol .. 189
J Content Structure Analysis of Think-Aloud Text 198
K Sample of Coded Retelling Protocol 200
L Tree-Structure for Content of Think-aloud Text 201

VITA 202

LIST OF TABLES

TABLE		Page
1	Categories of Comprehension Strategies	77
2	Metacognitive Strategies of Proficient ESL Readers	81
3	Metacognitive Strategies of Less Proficient ESL Readers	86
4	Metacognitive Strategies: Types and Frequency	90
5	Bottom-up Strategies of Proficient ESL Readers	92
6	Bottom-up Strategies of Less Proficient ESL Readers	96
7	Bottom-up Strategies: Types and Frequency.....	99
8	Top-down Strategies of Proficient ESL Readers	103
9	Top-down Strategies of Less Proficient ESL Readers.....	109
10	Top-down Strategies: Types and Frequency	114
11	Level of Comprehension	119
12	Idea Units Recalled: Kinds and Number	126

LIST OF FIGURES

FIGURE		Page
1	Coady's (1979) Model of the ESL Reader	24
2	A Schematic Representation of a Working Memory	41

LIST OF ABBREVIATIONS

UPM	Universiti Pertanian Malaysia
UKM	Universiti Kebangsaan Malaysia
ITM	Institut Teknologi Mara
BIBK	Bahasa Inggeris sebagai Bahasa Kedua
ESL	English as a Second Language
TESL	Teaching of English as a Second Language
L1	one's mother tongue or first language
L2	one's second language
P readers	proficient ESL readers
LP readers	less proficient ESL readers

An abstract of thesis submitted to the Senate of Universiti Pertanian Malaysia in fulfilment of the requirements for the degree of Master of Science.

EXAMINING COMPREHENSION STRATEGY-USE VIA THINKING ALOUD AND COMPREHENSION VIA RETELLING: A COMPARATIVE STUDY OF PROFICIENT AND LESS PROFICIENT ESL READERS AT MATRICULATION LEVEL

By

TING SU HIE

July 1995

Chairman: Dr. Sali Zaliha Mustapha
Faculty: Fakulti Pengajian Pendidikan

The aim of this study is to describe comprehension strategy-use and comprehension of ESL readers in the Science Matriculation Programme of Universiti Pertanian Malaysia. The nine proficient and eleven less proficient ESL readers of this study were selected based on their scores in a Test of Reading Skills.

The use of comprehension strategies during reading was elicited via thinking-aloud procedures. The product of reading, comprehension, was assessed via oral retelling. The idea units in the retelling protocols were compared with the content structure analysis of the think-aloud text to find out the percentage and kinds of idea units recalled. The think-aloud and retelling protocols were transcribed and analyzed.

The findings of the study showed that: (1) the proficient ESL readers used significantly more metacognitive and top-down cognitive strategies but less bottom-up cognitive strategies than the less proficient ESL readers; and (2) the proficient ESL readers had a significantly higher level of comprehension and significantly better recall of more superordinate and supporting idea units than the less proficient ESL readers.

The qualitative analysis revealed that the generally low comprehension levels of the ESL readers of this study was due to misinterpretations of the text. The misinterpretations occurred due to the ESL readers' inadequate control over vocabulary and

grammar of the English Language. In order to get the meaning of the text, the ESL readers relied on bottom-up strategies and processed the text in small chunks. However, their comprehension failures could not be satisfactorily overcomed by the use of comprehension strategies. The pedagogical implication of this finding is that there is a need to build up linguistic knowledge in vocabulary and grammar, as well as perceptiveness in discerning when to pursue decoding or when to ignore word and structure recognition problems. Experimental studies involving comprehension strategy training with pre and post think-aloud and retelling sessions are recommended.

Abstrak tesis yang dikemukakan kepada Senat
Universiti Pertanian Malaysia sebagai memenuhi
sebahagian daripada keperluan untuk ijazah Master Sains

MENELITI PENGGUNAAN STRATEGI PEMAHAMAN MELALUI PENYUARAAN FIKIRAN SPONTAN DAN PEMAHAMAN MELALUI PENGINGATAN SEMULA: KAJIAN PERBANDINGAN TERHADAP PEMBACA LANCAR DAN KURANG LANCAR PADA PERINGKAT MATRIKULASI

Oleh

TING SU HIE

Julai 1995

Pengerusi: Dr. Sali Zaliha Mustapha
Faculti: Fakulti Pengajian Pendidikan

Tujuan kajian ini adalah menghuraikan pemahaman dan penggunaan strategi pemahaman di kalangan pembaca-pembaca dengan Bahasa Inggeris sebagai bahasa kedua (BIBK) di dalam program Matrikulasi Sains, Universiti Pertanian Malaysia. Sembilan pembaca lancar dan sebelas pembaca BIBK kurang lancar dipilih berdasarkan markat mereka di dalam Ujian Kemahiran Membaca.

Penggunaan strategi pemahaman dikaji melalui prosedur "penyuaraan fikiran spontan". Hasil pemahaman, iaitu kefahaman, dinilai melalui "penceritaan semula". Jumlah dan jenis unit ide yang terdapat di dalam protokol "penceritaan semula" dibanding dengan satu analisis struktur isi teks tadi.

Protokol-protokol "penyuaraan fikiran spontan" dan "penceritaaan semula" ditranskripsi dan dianalisis. Pendapatan kajian ini menunjukkan bahawa: (1) pembaca BIBK yang lancar menggunakan strategi "metacognitive" dan strategi "top-down" lebih daripada pembaca-pembaca BIBK yang kurang lancar, sementara pembaca-pembaca BIBK yang kurang lancar menggunakan lebih strategi "bottom-up"; dan (2) pembaca-pembaca BIBK yang lancar mempunyai kefahaman yang lebih tinggi, serta dapat mengingati lebih ide utama dan sub-sub unit ide daripada pembaca-pembaca BIBK yang kurang lancar.

Analisis kualitatif menunjukkan bahawa pembaca-pembaca BIBK memperolehi kefahaman yang rendah terhadap teks yang dibaca, pada keseluruhannya, kerana pembaca-pembaca BIBK di dalam kajian ini cenderung untuk menginterpretasi teks dengan tidak tepat. Ini

menyebabkan kelemahan di dalam pengetahuan perbendaharaan dan nahu Bahasa Inggeris di kalangan pembaca-pembaca BIBK. Mereka cuba mengatasi masalah pemahaman mereka dengan menggunakan banyak strategi "bottom-up". Namun demikian, penggunaan strategi-strategi pemahaman kurang berkesan untuk mengatasi masalah pemahaman mereka. Implikasi pendapatan kajian ini ialah pengetahuan linguistik pembaca-pembaca BIBK dari segi perbendaharaan kata dan nahu perlu dikuatkan. Mereka juga perlu dilatih supaya mereka tahu bila mereka harus cuba mendapat makna sesuatu perkataan atau ayat, dan bila mereka boleh tidak peduli akan kekurangan pemahaman. Kajian lanjutan yang dicadangkan adalah kajian eksperimen yang melibati penggunaan prosedur-prosedur "penyuaraan fikiran spontan" dan "penceritaan semula" sebelum dan selepas latihan strategi pemahaman.

CHAPTER I

INTRODUCTION

Background of the Research Problem

In language classrooms, reading comprehension questions usually focus on identification of specific details in the text. The assumption underlying this practice is that students who are able to extract the required details from text have understood the text well. In the reading phenomenon, it is not sufficient just to focus on comprehension, the product of reading done. The process of working through a reading task is often as important as producing correct responses to *post facto* comprehension questions (Clarke and Silberstein, 1987).

The product of reading is the focus of a number of studies in Malaysia. For example, Chai (1990) studied the effect of pre-reading instruction on comprehension of 40 ESL students taking an intensive course at Institut Tecknologi Mara (ITM). Comprehension was assessed using three types of questions drawn up based on the taxonomy developed by Pearson and

Johnson (1978), namely, textually implicit, scriptally implicit and textually explicit questions. In Pearson and Johnson's (1978) taxonomy, textually implicit questions require readers to combine separate pieces of information in order to produce an answer whereas scriptally implicit questions require readers to combine some information from the text with his prior knowledge. The textually explicit questions are relatively easier as the question and response information are stated in a single sentence in the text. Chai (1990) found that the background knowledge provided during pre-reading instruction enabled the poor readers to perform as well as good readers in the textually implicit and scriptally implicit questions. The highest scores were for textually explicit questions. Viewed from the angle of readers' interaction with the text, it seems that these ESL students were capable of identifying clearly-stated information, but were not as capable at inferring from stated information in the text.

In Jariah Mohd. Jan *et al.*'s (1993) study too, it was found that the 17 Form Four literature students were able to answer the literal level questions well but not the higher order inferential questions. These comprehension questions were formed based on Hillocks and Ludlow's (1984) model for reading and

interpretation of fiction. In Hillocks and Ludlow's (1984) model, literal level questions require readers to identify frequently stated information, key details and statements which explain the relationship between at least two pieces of information in the text. On the other hand, inferential level questions require readers to infer relationship between two or more pieces of information in the text, author's generalizations about the world outside the text, and to generalize about how parts of work operate together to achieve certain effects.

The findings of Chai (1990) and Jariah Mohd. Jan *et al*. (1993) on the product of reading indicate that ESL students can comprehend the English text literally but lack interpretative comprehension skills. Examining the comprehension process of ESL readers would reveal why they are unable to build on literal comprehension and go beyond information which is explicitly stated in the text. The practical value of process-oriented reading research is in the identification of effective comprehension strategies which can be taught to poorer readers in the language learning classroom.

In Malaysia, a number of studies on the process of reading has been carried out. Lee Su Kim (1983) and Spykerman (1988) used miscue analysis to find out the types of textual cues readers attend to during reading. Lee Su Kim's study compared two groups of Malay ESL learners (undergraduate students at UKM): 20 more able readers and 20 less able readers. However, the participants of Spykerman's (1988) were from a younger age group; the four average and four weak ESL readers are Form I students from Sekolah Menengah Bangsar, Kuala Lumpur. The results of both studies show that average and weak ESL readers depended extensively on graphophonemic cues, and they hardly used syntactic and semantic cues. These two studies did not look into the manner in which these textual cues are used during the process of reading.

A more in-depth study of the process and product of reading was carried out by Sali Zaliha Mustapha (1991) using think-aloud, retell and free-write protocols. The ten proficient adult ESL readers of this study were in-service teachers who were pursuing a bachelor's degree in TESL in UPM. The findings show that proficient adult ESL readers used a variety of reading strategies (with 57% of the strategies being metacognitive strategies) to comprehend an expository text.

However, in-depth studies of a similar nature on the reading process of less proficient ESL learners in Malaysia are still lacking. Since it is the less proficient ESL learners who face comprehension difficulties, it is imperative that in-depth studies be conducted to find out how they read to get meaning from a text in English. In studies done in other countries, Abraham and Vann (1987), Vann and Abraham (11990) and Block (1986, 1992) found that less proficient ESL learners used certain reading strategies which are less efficient in aiding comprehension as compared to their proficient counterparts. In view of these findings, it is pertinent to find out differences in the way comprehension strategies are used by proficient and less proficient Malaysian ESL readers.

Statement of the Problem

In schools and at the tertiary level, classroom observations show that ESL readers face problems in comprehending texts in English. The less proficient ESL readers often fail to decode texts in English accurately, and as a result, they fail to exploit the text fully for meaning. The lack of ability to comprehend texts in English is a major hinderance in academic pursuit for ESL learners at tertiary level

because they need to read for information in English Language reference books. On the other hand, the more proficient ESL readers do not face much problems in comprehending the text. Some are even able to enrich their comprehension of the text by using their background knowledge. The better comprehension of proficient ESL readers is usually linked to factors like greater exposure to English, background knowledge and general competency in the language. There is indication in research findings that use of comprehension strategies differ for proficient and less proficient ESL readers.

The results of Lee Su Kim (1983) and Spykerman (1988) miscue analysis studies show that the ESL readers in their studies depended on graphophonemic to comprehend the text. Lee Su Kim's (1983) study was on more able and less able ESL readers whereas Spykerman's (1988) study was on average and weak ESL readers. The better ESL readers in both studies made minimal use of semantic cues to comprehend the text. Lee Su Kim (1989) explains that the more able readers had to resort to the graphic information because of their inadequate control of the grammar system and vocabulary of the English language. An in-depth study into the use of comprehension strategies of proficient and less proficient ESL readers would shed light on the nature

of comprehension difficulties faced by ESL readers. The main aim of this study is to describe usage of comprehension strategies by proficient and less proficient ESL readers as well as their comprehension.

The purpose of this study gives rise to three primary questions:

1) What types of comprehension strategies do proficient and less proficient ESL readers use?
2) What is the comprehension level of proficient and less proficient ESL readers?
3) What is the relationship between use of comprehension strategies and comprehension of proficient and less proficient ESL readers?

The implications from the findings of this study would help practising English Language teachers address comprehension problems of less proficient ESL readers so as to enhance their comprehension of English texts.

Objectives of the Study

Generally this study aims at describing the use of comprehension strategies and comprehension of proficient and less proficient ESL readers. The two

groups of ESL readers are Science Matriculation students of Universiti Pertanian Malaysia (UPM) who have been selected by means of a Test of Reading Skills (see *Appendix A*).

The research questions are as follows:

1) Do the proficient ESL readers use more metacognitive strategies than the less proficient ESL readers?
2) Do the proficient ESL readers use more top-down strategies than the less proficient ESL readers?
3) Do the less proficient ESL readers use more bottom-up strategies than the proficient ESL readers?
4) Do the proficient ESL readers recall a higher percentage of idea units than the less proficient ESL readers?
5) Do the proficient ESL readers recall more superordinate idea units than the less proficient ESL readers?
6) Do the proficient ESL readers recall more supporting idea units than the less proficient ESL readers?