



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun  
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

**THE EFFECTIVENESS OF METACOGNITIVE STRATEGIES IN WORD  
RECOGNITION TO IMPROVE READING COMPREHENSION OF LOWER  
SECONDARY ESL POOR READERS**

**JAYANTHI A/P KARUPPAN**



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun  
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi

**A PROJECT PAPER SUBMITTED TO THE FACULTY OF LANGUAGES IN  
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF EDUCATION**

**FACULTY OF LANGUAGES  
UNIVERSITI PENDIDIKAN SULTAN IDRIS**

**2005**



05-4506832



pustaka.upsi.edu.my



Perpustakaan Tuanku Bainun  
Kampus Sultan Abdul Jalil Shah



PustakaTBainun



ptbupsi



## DECLARATION

I hereby declare that the work in this project paper is my own except for quotations and summaries which have been duly acknowledged.

Date: 26/01/06



JAYANTHI A/P KARUPPAN  
200200800





## ACKNOWLEDGMENT

My utmost sincere thanks go to the Almighty One for making this task possible.

I would like to convey my heartfelt thanks to my supervisor Dr. Goh Hock Seng for his guidance and help in accomplishing my most waited task of this project paper. My appreciation to the Faculty of Languages, Universiti Pendidikan Sultan Idris for allowing me to carry out the topic selected and giving me the opportunity to produce this piece of research.

I convey my heartfelt thanks to my family members who have supported me throughout my study in providing me with the necessary tools and time to complete my project paper.

Thank you.





## ABSTRAK

Di seluruh Malaysia, para pendidik mula meningkatkan tumpuan kepada pelajar-pelajar yang dianggap mempunyai masalah pemahaman, terutama dalam bahasa kedua iaitu Bahasa Inggeris. Ramai pelajar di dapati lemah dalam pemahaman kerana kurang teliti dengan perkataan-perkataan baru semasa pembacaan sesuatu teks. Oleh itu, ketidakfahaman sesuatu perkataan baru itu menjadi penghalang kepada pembaca yang kurang mahir dalam pemahaman. Mengenal perkataan merupakan satu unsur yang penting demi memahami apa yang dibaca. Sekiranya, pelajar boleh membaca tetapi tidak faham apa yang dibaca, maka pelajar ini akan hilang minat untuk terus membaca dalam bahasa kedua ini. Kajian ini bertujuan untuk mengkaji cara-cara yang berkesan untuk membantu pelajar-pelajar yang lemah dalam pemahaman untuk menambahbaik kemahiran mengenal perkataan. Kajian ini, sebenarnya merupakan replikasi penyelidikan yang telah dijalankan oleh Spedding dan Chan (1991,1993,1994) pada pelajar yang menggunakan Bahasa Inggeris Sebagai Bahasa Pertama (L1). Dalam kajian ini, sampel yang digunakan adalah pelajar-pelajar yang menggunakan Bahasa Inggeris Sebagai Bahasa Kedua (ESL). Satu kumpulan terkawal diajar dengan cara tradisional manakala kumpulan eksperimental diajar dengan menggunakan strategi metakognisi untuk mengenal perkataan. Subjek-subjek eksperimental dilatih untuk mengamalkan strategi-strategi pembacaan yang berkesan untuk mengenal perkataan baru, iaitu pembayang orthografik dan pembayang konteks. Ujian pra dan ujian pos telah dikendalikan dengan menggunakan tiga petikan pemahaman. Kumpulan eksperimental memperoleh keputusan yang baik dalam ujian pos, maka ia menunjukkan perkembangan yang signifikan dengan penggunaan strategi metakognisi mengenal perkataan baru di kalangan pembaca-pembaca kurang mahir. Walau bagaimana pun, kumpulan terkawal juga memperoleh keputusan ujian pos yang lebih baik daripada ujian pra. Tetapi skor min dan 'standard deviation' menunjukkan keputusan kumpulan eksperimental lebih baik daripada kumpulan terkawal. Keputusan ujian pos antara kumpulan eksperimental dan terkawal tidak menampakkan perbezaan signifikan. Dapatan soal-selidik juga menampakkan pembayang yang sentiasa digunakan oleh pembaca yang kurang mahir dalam mengenali perkataan baru ialah pembayang konteks





## ABSTRACT

Throughout Malaysia, concern is growing among educators about the increasing number of poor readers of English in the secondary school and at tertiary level. It has been found that a large number of students do not know how to recognize an unfamiliar word during the reading process. Thus, this inability hinders the comprehension of the readers, and eventually, these poor readers lose interest to read materials in the second language (L2). This study examined the effective methods to improve the word recognition skill among the poor readers. This study actually replicates the research done by Spedding and Chan (1991, 1993, 1994) experimenting on the L1 learners in Australia. The samples in this study are learners of English as Second Language (ESL). In this study the experimental group was taught to use metacognitive strategies of word identification. These subjects were trained to use the orthographic clues and context clues to recognize unfamiliar words which they encountered in their reading comprehension texts. The subjects in the control group were taught using the traditional methods of word recognition. Pretest and posttest were given to the subjects using three comprehension texts. The results showed that the experimental group benefited from the training with significant improvement in their use of metacognitive strategies in word recognition of unknown words. Nevertheless, the control group too showed some improvement in their posttest scores. The paired samples t-tests revealed that there is a significant difference within the experimental group's score in their posttest, after the training period. However, it was found that there was no significant difference between the groups' scores in the pretest as well as the posttest using the statistical independent samples t-test. The findings from the questionnaire revealed that the lower secondary poor readers prefer to use context clues to identify unknown words during reading comprehension.



## CONTENTS

	Pages
DECLARATION	ii
ACKNOWLEDGMENT	iii
ABSTRAK	iv
ABSTRACT	v
LIST OF TABLES	
<b>CHAPTER ONE: INTRODUCTION</b>	<b>1</b>
1.1 Background of study	2
1.2 Statement of problem	3
1.3 Purpose of the study	5
1.4 Rationale of the Study	6
1.5 Definition of Terms	7
1.5.1 Metacognition	7
1.5.2 Metacognitive Strategies	7
1.5.3 Word Recognition skills	8
1.5.4 Clue	8
1.5.5 Reading	9
1.5.6 Comprehension	9
1.5.7 Poor readers	10
1.6 Significance of the study	11

1.7	Limitations of the study	12
<b>CHAPTER TWO: LITERATURE REVIEW</b>		<b>13</b>
2.0	Introduction	13
2.1	Related Research in Word Recognition	15
2.2	Research on Metacognitive Strategies of Word Recognition	19
2.2.1	Related Research on Orthographic Clues	19
2.2.2	Related Research on Context Clues	21
2.3	Summary	23
<b>CHAPTER THREE: METHODOLOGY</b>		<b>25</b>
3.0	Introduction	25
3.1	Method	26
3.2	The Null Hypothesis	27
3.3	Subjects	28
3.4	Instrumentation	30
3.4.1	Questionnaire	31
3.5	Procedure	32
3.5.1	Treatment for Experimental Group	32
3.5.2	Control Group-Traditional Methods Of Teaching	35
3.5	Data Collection	36
3.6	Pilot Study	36

3.7 Data Analysis 37

CHAPTER FOUR: DATA ANALYSIS 38

4.0 Introduction 38

4.1 Analysis of Data 38

4.2 Summary of Findings 45

CHAPTER FIVE: DISCUSSION AND CONCLUSION 47

5.0 Introduction 47

5.1 Discussion and Conclusion 48

5.2 Pedagogical Implications 52

5.3 Limitations of the Study 54

5.4 Recommendations  
For Future Research 55

5.5 Summary 56

REFERENCES 59

APPENDIX A Comprehension passages 63

APPENDIX B Questionnaire 69

APPENDIX C Checklist 75

APPENDIX D Orthographic and Context Clues 77

APPENDIX E Descriptive Statistics 79

APPENDIX F Paired Samples t-test 80

APPENDIX G Independent Samples t-test 82

## LIST OF TABLES

Tables	Pages
3.1. Distribution of subjects according to race	29
3.2. Distribution of subjects according to primary education	29
4.1 Phases before and after treatment	38
4.2 Pretest and Posttest Results of the Comprehension Test Control Group	39
4.3 Pretest and Posttest Results of the Comprehension Test Experimental Group	40
4.4 Mean and Standard Deviation of Pretest-Posttest Results	41
4.5 Word Recognition with the help of orthographic and Context clues: Experimental Group-based on checklist	43
4.6 Word Recognition using orthographic clues: Experimental Group (Questionnaire- based)	44
4.7 Word Recognition using context clues: Experimental Group (Questionnaire-based)	45



## CHAPTER ONE

### INTRODUCTION

Researches have provided statistical evidence that metacognitive skills, strategies or knowledge has led readers of second language to comprehend English texts better or proficiently. Metacognitive researches such as those carried out by Stanovich(1989), Flavell(1981), Spedding and Chan(1991), Bruce and Robinson(2000) have provided valuable insights in producing effective methods of teaching comprehension to ESL good readers. Studies on metacognitive strategies of poor readers have been extensively done to help poor readers and poor comprehenders of English. These studies have initiated the study undertaken here on poor readers of English as Second Language (ESL).

This chapter highlights the background, purpose of the study, significance of the study, rationale of the study, research questions together with the definition of terms, and the limitations of the study.



## 1.1 Background of the Study

Researches indicate that for the majority of poor readers the basic source of their difficulty is failure to develop accurate and efficient word recognition skills (Spedding & Chan, 1993). Poor readers do not have enough cognitive resources when they become more attentive to the decoding task instead of comprehending the text. The construction of meaning is at risk (Bruce & Robinson, 2000). As the poor readers fail to develop the word recognition skills, they are easily discouraged and hence avoid reading whenever possible. This in turn inhibits growth in reading (Juel, 1988; Stanovich, 1989, 2000). The situation of these poor readers is worsened when they experience repeated failures and can lead to attitudes of “learned helplessness” whereby students give up trying and so perpetuate the failure cycle. This “learned helplessness” is partly due to the unavailability of metacognitive strategies for coping with failure (Bruce and Robinson, 2000).

We want students to read as widely as possible but when they encounter too many unknown words, comprehension begins to falter. Since students usually do not carry a dictionary close at hand, teachers should provide them with the necessary tools or strategies that they can apply when they come across unfamiliar words while reading.

The recent KBSM syllabus is becoming more challenging in order to create more rounded and versatile individuals. Critical thinking skills have been emphasized to encourage students to use their abilities of metacognition. Therefore, metacognitive strategies have to be made aware to students, whether they are good readers or poor readers.

## 1.2 Statement of the Problem

Some adjustments have been made to the Malaysian English Language syllabus, yet the proficiency level of students shows insignificant improvement in the language. Under the KBSM, the syllabus is on topical base and students are unable to learn the language effectively (Pillay and North, 1997 cited in Cecilia Joseph, 1998), and this has resulted in teachers teaching about the topic rather than the language through the topic. The syllabus is so content driven that the activities or tasks given do not rationalize the natural setting. There is no meaningful communication of when and where to use.

As such, students tend to read without understanding the text. Students are required to answer comprehension questions and text completion tasks at the PMR level while the Forms 4 and 5 students need to comprehend well the text read to enable them to answer the comprehension questions and also to summarize the same text. The poor readers who are also poor comprehenders become disabled comprehenders when there are too many unfamiliar words. These poor readers are not aware of reading strategies being employed in the reading process, hence, they fail to comprehend the reading text. Therefore, these poor readers should be taught to use metacognitive strategies to enhance their understanding of the text, and this will enable them to answer comprehension questions effectively. Students are unaware of the abilities they possess, thus they are uncertain in recognizing an unfamiliar word when they come across in their reading, especially the poor comprehenders of English texts. These students should be helped so that they are equipped with the necessary strategies of recognizing new words.

Teachers should give greater thought to utilizing reading comprehension in a meaningful way that will enable the students to acquire comprehension skills rather than

just listen to the teacher explain difficult words and then requiring the students to answer comprehension questions. Some reading strategies should be emphasized, and coach students to use those strategies such as looking for clues, skimming and scanning.

One possible way is to use metacognitive strategies in their reading comprehension. Teachers of ESL should teach students to learn how to learn. This is one of the elements listed under the Educational Emphases in the recent English syllabus.

Some studies have shown that readers have used some reading strategies consciously or unconsciously. Less proficient or poor readers have used fewer strategies and used them less effectively in their reading comprehension (Garner, 1987; Waxman and Padron, 1987). Studies on monolinguals have indicated that poor readers use less sophisticated and inappropriate strategies during reading (Brown, Armbruster & Baker, 1986). These poor readers are unaware of their abilities to use the appropriate strategies to understand unfamiliar words while reading a text.

There was a study done by Spedding and Chan (1991) on word recognition using metacognitive strategies of students learning English as their first language (L1). The findings produced a positive outcome of using metacognitive strategies by poor readers of L1 on identifying unknown words which they encounter while reading a text.

In this study the focus is on metacognitive strategies of word recognition to help the moderately adequate decoders and poor comprehenders of English texts, who learn English Language as second language or L2. The experimenter uses only two types of metacognitive strategies of word recognition namely, orthographic clues and context clues. The experimenter would want to know the effectiveness of these strategies on L2



poor readers, so that they can become good readers as well as good comprehenders of any English text.

### 1.3 Purpose of the Study

The main aim of this study is to investigate the effectiveness of metacognitive strategies for improving the word recognition skill in reading comprehension texts of lower secondary poor readers.

Several researchers have concluded that poor readers' problem with word recognition may reflect deficiencies in the metacognitive strategies that underlie this skill (Spedding & Chan, 1993). Bruce and Robinson (1996) found that the poor readers of upper primary students were inferior in the use of orthographic clues, morphological clues and context clues.

Metacognitive strategies in word identification probably would enable the students to employ the awareness and regulation of the strategies to recognize unknown words using the available clues (Spedding & Chan, 1991).

This study is based on the research questions below:

#### Research Questions

1. To what extent do the metacognitive strategies of word recognition improve reading comprehension of lower secondary poor readers of ESL?
2. Which clue do the poor readers prefer to use (orthographic or context) to recognize unfamiliar words in their reading?





## 1.4 Rationale of the Study

The rationale of the study is to help poor readers to use metacognitive strategies to resolve comprehension failures. Tei and Stewart (1985) have discussed several strategies in their research, and among them is the strategy of searching the text to identify unknown words.

Poor readers are unaware of their purpose of reading and they tend to give less emphasis to unknown or unfamiliar words and phrases. Thus, they become less able to capture the logical structure of the text, and this leads to lack of comprehension of how and why the ideas are interconnected (Owings, 1980 cited in John Arul Philips, 1992). Students cannot learn unless they are able to comprehend what they are reading from the text and at the same time they do not remember unless they understand it.

Researches on the use of metacognitive strategies have been done in the learning of the second language, basically using proficient readers or average readers. In this study, the researcher attempts to examine if poor readers can use the metacognitive strategies of word recognition to enhance their reading ability in comprehending the texts read. Here, the content area teachers have a significant role to play in teaching students to understand a written content during the reading act. One of the elements of teaching is the Educational Emphases: Learning How to Learn, a component relevant in teaching language.

It is important to note here that this study only focuses and discusses, two types of clues of metacognitive strategies influencing word recognition among poor readers of ESL. These clues are namely, orthographic and context clues. Emphasis is not given for



phonic clues because lower secondary students at their level are capable of identifying sounds of words using syllabic representation.

## **1.5 Definition of the Terms**

### **1.5.1 Metacognition**

The term metacognition was first introduced by Flavell (1979, cited in Flavell, 1981). Metacognition has been defined as “having knowledge and having understanding, control over and appropriate use of that knowledge” (Tei & Stewart, 1985:47). In other words it is defined as ‘thinking about thinking’ by Livingston (1997) or ‘thinking of one’s own thinking’ by Bentley (2001, cited in Reyhan and Ayse, 2002). Thus, it involves the cognition of one’s understanding that controls the appropriate use of the knowledge acquired.

### **1.5.2 Metacognitive Strategies**

Metacognitive strategies are knowledge used in learning to comprehend texts effectively. It is the behaviour that works to achieve cognition (Flavell, 1981). Flavell (1981) and Devine (1993, cited in Livingston, 1997) said that they are strategies that function to monitor or regulate cognitive strategies.

Metacognitive strategies are sequential processes that readers use to control their cognitive activities, to achieve their cognitive goal that is to understand a text (Livingston, 1997).

### 1.5.3 Word Recognition Skill

According to Sandra McCormick (1999:256) word recognition refers to the instant recall of words in which the reader identifies a word. When the reader recognizes a word and can say it without hesitation, it is said that the reader has developed automaticity; that is the reader's brain is able to process the word automatically.

Stanovich, together with West (1989) describe word recognition is the link to the printed representation of a word with its meaning. He says that the higher order skills such as comprehension, vocabulary development and purposeful reading and writing are reliable on accurate word recognition. He added that word recognition is the central to reading (cited in Chard, Simmons & Kameenui, 2000).

Kirby (1984, cited in McCormick, 1999) defines skill as a capacity or ability, which can be expressed in behaviour at any time because they have been cultivated through practice. Word recognition skills will be abilities to recognize the phonic system, orthographic, morphological and context clues in order to comprehend unknown words, hence comprehend the whole text.

### 1.5.4 Clue

Based on the "Collins Cobuild English Dictionary for Advanced Learners" (2001), clue is defined as something that helps to find the answer to a problem or mystery. In this study, clue is used to help poor readers to understand comprehension texts effectively. The clues facilitate the recognition of unfamiliar words that students come across while reading.

### 1.5.5 Reading

Reading is a process where readers interact with the printed materials such as books, newspapers, magazines etc. The traditional view was that reading has been categorized as receptive skill. Recent researches declare that reading is an active process whereby the cognitive attention is given to the reading material. A reader actively processes the information from the text and further think about information read. In this study, reading is concerned with interacting with the text actively and understanding the information or message of the text read.

### 1.5.6 Comprehension

Comprehension literally means understanding. In order to read a text one should use the comprehension strategy or skill to identify the words to extract the relevant information from the text. Comprehension of a text can be achieved if proper strategies are used, such as summarization, prediction and inferring word meaning from context. Kintsch (1998, cited in Bruce and Robinson, 2000) says that the deeper understanding of text is learning from the text that is from the context. It involves the construction of mental representation and use the information acquired from the text productively in novel environments.

### 1.5.7 Poor readers

Goug and Hillinger (1980, cited in McCormick, 1999) state that “the most conspicuous difference between good and poor readers is found in the swift and accurate recognition of individual words.” Poor readers are thought to have poor or weak word recognition compared to good readers regardless of whether the words are in context or out of context (Spedding & Chan, 1994). These poor readers have problems in phonic decoding and fluent word identification. Thus, these readers are characterized by very slow rate of word recognition. These students are unable to make sense of what they read

In this study, the poor readers are weak in word recognition skill, but they are moderately adequate decoders. They can decode the English texts with moderate fluency. When these poor readers cannot recognize a word effectively, they become more attentive to the word and contemplate on the word in isolation. This causes them to concentrate on the word alone and ignore the word in context. Thus, it blocks the effective comprehension of the text.

The poor readers in this study are those who are moderately adequate decoders but poor comprehenders. Moderately adequate decoders mean these readers understand the alphabetic principle (that letters can represent sounds) and they can decode the words on the page (Greenleaf, Schoenbach, Cziko & Mueller, 1999). Poor comprehenders are readers who have the ability to decode, however, they cannot tell what words on the page add up to, what sense they make (Greenleaf, Schoenbach, Cziko & Mueller, 1999). Poor comprehenders have a deficiency in vocabulary and common information.

## 1.6 Significance of the Study

This study was aimed at improving reading comprehension among poor readers. There are few studies done on learning to read in Malaysia. They have focused on how learners use such strategies in reading, but very limited studies have been done solely on metacognitive strategies used in learning to read (Norhayati, 1998; Joseph, 1998). Norhayati (1998) did a case study. The data was collected from only one student. A student's documentation of the metacognitive strategy does not represent conclusive evidence of the approaches used by other students, as approaches used vary among students.

Besides that, a study on poor readers and ways to rectify their reading ability should be carried out. The researcher believes that this will help teachers to tackle poor readers by training them to use their metacognitive abilities effectively. As such, it is vital to carry out a study in this area, not only does there exist documented data of metacognitive strategies used in the local natural setting, but also data which can be used to compare with the findings from other related studies.

The findings from this study could also motivate the teachers to be optimistic and vary their teaching styles and approaches. This in turn, will give confidence to the students and boost their morale, thus build interest in them to read.

In order to help the poor readers, it is important to teach them to recognize words. This will encourage poor readers to read and comprehend the texts given without fuss. Hence, students will be able to understand the task of reading is the derivation of meaning from the text. They will be able to self-regulate their reading process in order to read comprehension texts. Teachers should bear in mind that the poor readers would be sitting

for the same papers as the good readers for public examinations. Therefore, the poor readers need the relevant metacognitive strategies to be used in their reading and this can be done through teaching and guiding them to use the strategies.

Finally, the findings of this study will provide room for other researchers to design new methods and approaches to deal with the poor ESL readers, be in schools or higher institutions.

### **1.7 Limitations of the Study**

There are several limitations of this study. First, the population from which the participants are drawn limits the number and type of students who may choose to participate. Samples consisted of only a small portion of the total school population of Form Two students in a particular school, for a relatively short period of time. The time given for training the students in metacognitive strategies to identify unknown words is inadequate. Second, it is possible that clues other than orthographic and context have been used by students to recognize words such as phonic clues that will give impact on the results of this study. Third, this study focuses only on metacognitive strategies in word recognition in reading to understand texts. Admittedly, there may be other metacognitive strategies, used by our Malaysian students, which are yet to be discovered or studied or still under research.