UNIVERSITI PUTRA MALAYSIA

THE EFFECT OF VOCABULARY INSTRUCTION ON DEPTH OF VOCABULARY KNOWLEDGE AND READING COMPREHENSION PERFORMANCE

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By

RAFIAH BINTI ABDUL RAHMAN

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Degree of Doctor of Philosophy

May 2008

To my late mother, Hajah Aminah bt Abd Hamid

Abstract of thesis presented to the School of Graduate Studies, Universiti Putra Malaysia in fulfilment of the requirements for the degree of Doctor of Philosophy.

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May 2008

Supervisor: Fauziah Hassan, PhD

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The study investigates the effect of vocabulary instruction on the depth of vocabulary knowledge and reading comprehension performance of English as Second Language (ESL) learners. It seeks to find out if teaching vocabulary contributes to the development of depth of vocabulary knowledge and reading comprehension performance. The experiment was carried out on 60 student teachers from one of the teachers' training institutes in Malaysia. This study was a true experimental, employing the Solomon Four-Group design. The reading section of MUET and the Word Association Test (WAT) were used as the instruments. The reading test was scored using percentages. Further, it was analysed under the five levels of questions in Barrett's taxonomy of cognitive and affective difficulty of questions. The WAT was scored using percentages and was further analysed under the three semantic relationships: paradigmatic, syntagmatic and analytic.

The statistical tests employed were the *t*-tests and the analysis ANOVA. Results indicate that vocabulary instruction has a significant difference on the participants' reading comprehension performance. Further analysis indicates that there are significant differences only in the literal and reorganization level. The results also indicate that there is a significant difference on the subjects' depth of vocabulary knowledge. Further analysis indicates that only the paradigmatic relationships are statistically significant. The findings support the interactive model of reading which recognizes the importance of vocabulary in the reading process. It also supports the linguistic threshold hypothesis (Clarke, 1979), which asserts that L2 reading ability depends on L2 language proficiency. The results also support the instrumentalist view (Anderson & Freebody, 1981), which claims that vocabulary knowledge is a direct factor in the causal chain resulting in reading comprehension. It can be concluded that vocabulary need to be taught explicitly to ESL learners in Malaysia in order for them to reach the vocabulary threshold level. The findings are discussed in relation to its pedagogical implications.

Abstrak projek yang dikemukakan kepada Sekolah Pengajian Siswazah Universiti Putra Malaysia sebagai memenuhi syarat bagi mendapatkan ijazah Doktor Falsafah.

KESAN PENGAJARAN PERBENDAHARAAN KATA TERHADAP TAHAP PENGETAHUAN PERBENDAHARAAN KATA DAN KEFAHAMAN

Oleh

RAFIAH BINTI ABDUL RAHMAN

Mei 2008

Penyelia: **Fauziah Hassan, PhD**

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Tujuan kajian ini adalah untuk mengkaji kesan pengajaran perbendaharaan kata terhadap tahap pengetahuan perbendaharaan kata dan kefahaman di kalangan pelajar Bahasa Inggeris sebagai Bahasa Kedua. Kajian ini bertujuan menyelidik kesan pengajaran perbendaharaan kata terhadap tahap pengetahuan perbendaharaan kata dan kefahaman. Subjek terdiri dari 60 orang guru pelatih di sebuah Institut Perguruan di Malaysia. Kajian eksperimental ini menggunakan rekabentuk 'Solomon Four-Group'. Instrumen yang digunakan ialah ujian bacaan dari MUET dan 'Word Association Test'. Ujian bacaan dinilai dengan menggunakan skor peratus diikuti dengan soalan kefahaman dari 5 aras mengikut taksonomi Barrett (1972). 'Word Association Test' juga menggunakan skor peratus dikuti dengan penganalisisan mengikut tiga hubungan semantik: paradagmatik, sintakmatik dan analitik. Ujian statistik yang digunakan ialah ujian *t* dan ANOVA. Analisis menunjukkan bahawa pengajaran perbendaharaan kata

memberi keputusan kefahaman yang lebih signifikan. Pengajaran perbendaharaan kata juga menunjukkan perbezaan yang signifikan pada tahap pengetahuan perbendaharaan kata. Dapatan kajian menyokong model bacaan interaktif (Rumelhart, 1977) dan hipotesis linguistic threshold (Clarke, 1979), yang menekankan bahawa keupayaan membaca dalam bahasa kedua bergantung atas keupayaan kefasihan bahasa kedua. Dapatan juga menyokong pandangan instrumentalis (Anderson & Freebody, 1981), yang menyatakan bahawa perbendaharaan kata ialah faktor utama dalam rangkaian sebab-akibat yang mendorong kefahaman. Perbincangan mengenai dapatan kajian dikaitkan dengan implikasi pedagogi.

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I certify that an Examination Committee met on 16 May 2008 to conduct the final examination of Rafiah binti Abdul Rahman on her Doctorate thesis entitled "The Effect of Vocabulary Instruction on Depth of Vocabulary Knowledge and Reading Comprehension Performance" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulation 1981. The committee recommends that the candidate be awarded the relevant degree.

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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

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RAFIAH BINTI ABDUL RAHMAN

Date: 16 May 2008

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LIST OF ABBREVIATIONS

L1	-	First language
L2	-	Second language
VK	-	Vocabulary knowledge
RC	-	Reading comprehension
FL	-	Foreign language
ESL	-	English as a Second Language
EFL	-	English as a Foreign Language
MC	-	Multiple choice
IPTHO	-	Institut Perguruan Tun Hussein Onn
SED	-	State Education Department
VLS	-	Vocabulary learning strategy
EL	-	English Language
ELP	-	English Language Proficiency
WAT	-	Word Association Test
TESL	-	Teaching English as a Second Language
MUET	-	Malaysian University English Test
UPM	-	Universiti Putra Malaysia
SPM	-	Sijil Pelajaran Malaysia
IV	-	Independent variable
DV	-	Dependent variable
ZPD	-	Zone of Proximal Development
LAD	-	Language Acquisition Device
LASS	-	Language Acquisition Support System
PDP	-	Parallel Distributed Processing
ANOVA	-	Analysis of Variance
PE	-	Pretested Experimental
PC	-	Pretested Control
UpE	-	Unpretested Experimental
UpC	-	Unpretested Control

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CHAPTER I

INTRODUCTION

Background of the Study

'Reading is to the mind what exercise is to the body' (R.Steele). This is just one among several sayings about the value of reading. Reading is more important today than it ever was because in this competitive world, it is crucial for one to be educated in order to succeed in one's profession and to become the nation's resource. To achieve this, reading is significant and thus, one has to read extensively. Reading extensively will undoubtedly build one's confidence as one has access to abundance of knowledge. Therefore, reading is an essential component of literacy and a key to the transmission of information and ideas.

In a rapidly developing country like Malaysia, the importance of reading is not only limited to reading in the first language (L1), but also extends to reading in a second language (L2). This is the reason why the Malaysian government stresses on the importance of reading as a life long process as reading can provoke thoughts and widen one's perspective. To be a developed country, Malaysians need to read, especially in English, as most information is written in English. This is in tandem with the government's effort to develop an information-rich society.

Reading is claimed to be the major source of vocabulary growth in L1. A number of studies in L1 (Krashen, 1989; Nagy, Anderson and Herman, 1987; Nagy and Herman, 1987) confirm that vocabulary can be acquired by reading. Results in this area have consistently shown a facilitating effect in both adults and children (Krashen, 1989). Nagy and Herman (1987, p.26) concluded in their study that when an unfamiliar word was seen in print, "a small but statistically reliable increase in word knowledge" typically occurred. Krashen (1989, p.440) make a strong claim that "vocabulary competence is most efficiently attained by comprehensible input in the form of reading".

In L2 and foreign language (FL) reading, some researchers have focused on the construct of L2 proficiency as the main predictor of reading ability. As the most relevant linguistic construct, L2 vocabulary knowledge (VK) is usually considered an important variable that affects RC (Alderson, 1984; Coady, Magoto, Hubbard, Graney, & Mokhtari, 1993; Laufer, 1992; Nation & Coady, 1988; Nagy & Scott, 2000). The linguistic threshold hypothesis (Clarke, 1979, 1980; Laufer, 1989, 1992, 1997; Nation, 1990) postulates that, in terms of vocabulary size, there is a threshold level below which the reader will be handicapped by a lack of comprehension. The linguistic threshold hypothesis or Clarke's short circuit hypothesis (1980) claims that competence in the L2 may place "a ceiling on L2 reading ability" (1988, p.120).

The symbiotic relationship between vocabulary knowledge (VK) and reading ability, or reading as both a cause and a consequence of vocabulary acquisition has been well documented (Nagy, Herman & Anderson, 1985; Nation & Coady, 1988; Stoller & Grabe,

1993). According to Nation and Coady (1988), although VK is not the only factor contributing to reading comprehension (RC), vocabulary can be an "accurate predictor" of the difficulty of a certain text. In fact, English as Second Language (ESL) vocabulary researchers now and again debate the amount of vocabulary L2 readers need to achieve comprehension of reading texts. However, the required vocabulary size seems to differ according to factors such as the genre of the text, the content domain knowledge required by the text, and the reader's purpose of reading (Koda, 2004).

VK seems to have a clear and distinct role in L2 RC. An apparent interpretation of the relationship is having a big vocabulary makes you a better reader. This suggests that if students know more words, they will understand texts better and vice versa (Stahl, 2005). According to Laufer & Sim (1985), vocabulary is the most needed knowledge followed by subject and syntactical knowledge in FL reading. According to Laufer (1989, 1992), a threshold of 95% lexical coverage of a text is needed for minimum comprehension during independent reading. This means that the core vocabulary accounts for roughly 80% of the words in most text (Nation & Newton, 1997). Laufer asserts that if this threshold is reached, the loading of guessing unfamiliar words would decrease and English as a Foreign Learning (EFL) learner could effectively achieve more appropriate comprehension. Thus, the sooner these words are learned, the better L2 RC is expedited. This suggests that VK is essential for an L2 reader to comprehend a text.

In an attempt to better understand how VK affects RC, Laufer (1992) administered a study to investigate the relationship between a threshold of VK and RC. Laufer's