

Review

Effects of Vocabulary Knowledge on Reading Comprehension

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With reference to a number of diverse studies reading comprehension and speaking are greatly affected by the size of vocabulary knowledge. The more vocabulary learners have, the more they are likely to read and understand. For that reason, ability to put ones' thoughts across is also dictated by word power. A remarkably greater vocabulary can affect a learner's knowledge of the world. Hence, this study sets out to consider the effect of vocabulary on oral abilities and reading comprehension. The participants are 160 students from King Khalid University, Saudi Arabia, namely Community College for Girls, where the researcher works as a tutor handling ESP courses. The study revealed that those who were provided with glosses or lists of word before embarking on their work, performed better than those without.

Keywords: Vocabulary knowledge, Reading comprehension, Oral abilities Learner's knowledge

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INTRODUCTION

Study of English has become an ordinary daily pursue for almost everyone who seeks to have a better job or travel or even moves up the social ladder. Closely connected with this hectic activity is the practice of reading. Reading in this context is not only associated with academic reading hunting high and low for high institutions degree, but also for improvement of one's career. Reading has loads of favorable impacts on language learning. Some researchers consider that reading soothes the progress of language development (Martin-Chang & Gould, 2008). Consequently, vocabulary knowledge corresponds directly to the amount of reading a person does. Harmer (2007) states that the amount of reading we do fashions out of us good writers and spellers.

In order for reading diverse texts to bring about the desired effect, it is essential to prepare the students to recognize the various devices used to create textual cohesion and more particularly the use of reference and link-words. If the reader does not understand some words

of the passage, some of the facts and ideas will probably escape him. But he does not understand inter or intra sentential connectors, he may also fail to recognize the communicative value of the passage. Right from the very beginning students should therefore, be taught not to understand them only when they come across them, but also to look out for such makers.

Reading techniques vary from one reader to another. Every reader has his own technique that suits him in reading process. This variation happens according to why he is reading and the kind of information he is looking for. Macmillan (1989: 5) suggests some techniques to the readers to follow. As the reader scanning the index for page reference, his eyes are looking for one entry to find out how much he is going to read and understand. This often means that reading the first sentence of each paragraph to note which bits he is he will come back to for the second reading. After that, the reader can read in details the essential paragraphs. By now the reader should have a good sense of the variety of reading

techniques he can use. Moreover, he can scan to find a particular piece of information or to answer a particular question. When the reader looks through the papers, he should decide which one really has to be dealt with. He can run his eyes down the page with one question in his mind and pay no attention to anything else.

The reader can skim to get an overview of the material he is planning to read, then he should read fast to get the gist of the text to spot relevant bits to come back to remember. He should read with a purpose when skimming and ignore the details and examples. In addition to the above steps, Macmillan also argues that the reader can:

- Read in detail only by skimming or scanning. Of course there are times when he has to read very closely, but this should be the last, not the first technique he uses.
- Read critically, when he is reading a material in which a view is expressed explicitly, such as when various newspapers give different interpretations of the same opinions.
- Read for pleasure any way he likes, because he is not either going to be examined or to be asked to remember and memorize, but just to enjoy it.

It is common in theories to distinguish different levels of understanding of a text. Some may distinguish between the literal understanding of the texts and understanding of the meaning that are not directly stated in the texts. Similarly, the distinction between understanding details and understanding the main idea of a text is familiar enough to the teachers of reading. Gray (1960: 95) claims that "Distinction between reading the lines and reading beyond the lines, the first refers to the literal meaning of text, the second to the inferred meaning and the third to the reader's critical evaluations of the text".

According to Anderson (2000: 8), such distinctions clearly relate to the product of reading, and enable teachers to describe some of the observed differences in understanding among readers. They also enable evaluation of such differences, since it is believed that inferred meaning has deeper meaning than literal meaning and that critical understanding of a text is more highly valued by society. This in turn, leads to an assumption that it is more difficult to reach critical understanding of text than it is to infer meaning.

LITERATURE REVIEW

Certainly, reading is a very complex process that calls for numerous diverse skills to come to work together. Hancock (1998) believes that in reading, "comprehension involves understanding the vocabulary, seeing

relationships among words and concepts, organizing ideas, recognizing the author's purpose, evaluating the context, and making judgments" (p. 69). Largely, for the reason that it is an intricate phenomenon, researchers have studied and examined many different areas of reading. Some studies looked at the effects of prior knowledge in reading comprehension (Brantmeier, 2005; Hammadou, 1991, 2000; Johnson, 1982; Lee, 1986; Nassaji, 2003; Qian, 2002) while others have examined the effects of vocabulary knowledge (Al-derson, 2000; Joshi & Aaron, 2000; Martin-Chang & Gould, 2008; Nagy & Scott, 2000; Pressley, 2000). Knowing how prior knowledge and vocabulary knowledge help reading comprehension would be an important area to explore because it could give teachers new approaches to teaching.

Knowledge of the world

What the reader brings to the text is their background knowledge. The readers' knowledge of the world affects their understanding quite considerably. The broader base or background they have, they are more apt to have a good access to the reading text.

According to research in second language acquisition, there is a consensus amongst linguists that background knowledge or prior knowledge lays a central role in reading comprehension (Brantmeier, 2005; Hammadou, 1991, 2000; Johnson, 1982; Lee, 1986; Nassaji, 2003; Pulido, 2004, 2007). For example, Johnson (1982) finds that a lack of cultural familiarity in ESL students has a greater impact on reading comprehension of a passage on Halloween than the pre-teaching of vocabulary. Lee (1986) has explored how background knowledge can affect reading, understanding and recalling of text in second language learners and has arrived at the fact that the learners' ability to recall is improved when they are provided with one of the three basic elements of background knowledge, context, transparency, and familiarity.

One theory concerning why prior knowledge effects comprehension is the ability of the students to make inferences. According to Hammadou (1991), inference refers to a cognitive process used to construct meaning through a thinking process that involves reasoning beyond the text through generalization and explanation. In the study, Hammadou (1991) examines inference strategies used by students and finds that background knowledge affects the comprehension process. The results of the study show that unlike advanced readers, beginners use a greater amount of inference in recall. Since greater inference is employed by newer readers, this can be taken to assume that the readers' background knowledge affects the comprehension process and that recall and comprehension are not the products of the text alone.

Besides using inferences, analogies could be used to help readers tie new, unfamiliar materials to familiar information in their memory. However, teachers have to exercise utmost care in presenting their students with analogies. It was observed that some analogies have no practical effect in rendering help to the learner. As determined by Hammadou (2000, p. 39), "for an analogy to aid comprehension optimally, the underlying structures of each part of the analogy must be similar, but the surface features should be very different." In their studies, both Hammadou (2000) and Brantmeier (2005) find that providing second language readers with analogies does not help improve reading comprehension, especially for longer, more difficult passages. This is because the use of analogy would sometimes make the reading passages more complex and more difficult to understand (Brantmeier, 2005). As a result, the analogies in the reading passages become a burden. Similar results have been found in Pulido (2004 & 2007) where background knowledge does not moderate the relationship between comprehension and retention of meaning from the text. In one study, Pulido (2004) examines the effects of cultural background knowledge on incidental vocabulary gain of nonsense words through reading and finds that background knowledge does not help students with weaker levels of L2 reading proficiency and limited vocabulary knowledge.

Despite the fact that quite a number of previous studies have revealed the effects of background knowledge in reading comprehension, acquiring background knowledge was not given the weight due to it in syllabuses or classroom setting. As far reading comprehension is concerned almost all the English language syllabuses followed in the foreign language classes do take as their point of departure developing of aspects linked with reading strategies such as previewing, skimming and scanning, summarizing, reviewing, critical thinking, understanding text structure and above all vocabulary building. Vocabulary is essential in reading comprehension as it is part of background knowledge. It goes without saying that the more words the readers know, the easier the learners are likely to have a good grasp of the texts they were presented with.

Numerous studies have demonstrated the link between reading comprehension and vocabulary knowledge (Joshi, 2005; Joshi & Aaron, 2000; Manyak & Bauer, 2009; Martin-Chang & Gould, 2008; Ricketts, Nation, & Bishop, 2007). Joshi and Aaron (2000) have pointed out that vocabulary knowledge is such a strong predictor of the learner's reading ability when factoring reading speed with decoding and comprehension. Martin-Chang and Gould (2008) have shown that a strong the existence of correlation both between vocabulary and reading comprehension and between reading rate and primary print knowledge. Vocabulary knowledge is essential in reading comprehension because it has a similar function

to background knowledge in reading comprehension. Vocabulary knowledge helps students in decoding, which is an important part of reading (Qian, 2002).

Several researchers believe vocabulary knowledge to be a key factor that affects reading comprehension in both first and second language learning (Alderson, 2000; Joshi, 2005; Qian, 2002; Ricketts et al., 2007). A shaky or poor vocabulary size, coupled with inability to infer word meanings, can act as a hurdle restraining learners from understanding the meaning of the text. Garcia (1991) finds that a lack of familiarity with vocabulary in the test passages and questions is a powerful factor affecting fifth and sixth grade Latino bilingual learner on a test of reading comprehension. Qian (1999, 2002; Qian & Schedl, 2004) studies the roles of breadth and depth of vocabulary knowledge in reading comprehension in academic settings. Breadth of vocabulary knowledge refers to the size of vocabulary that a person knows and depth of vocabulary knowledge relates to how well the person knows a word. These two crucial elements are of greater importance to language learners as they are more apt to encounter unfamiliar words. According to Qian (2002), "having a larger vocabulary gives the learner a larger database from which to guess the meaning of the unknown words or behavior of newly learned words, having deeper vocabulary knowledge will very likely improve the results of the guessing work" (p. 518).

Vocabulary research has not received adequate attention except after Crystal (1995: 119) made his outcry:

It is difficult to see how even a conservative estimate of English vocabulary could go much below a million lexemes. More radical accounts, allowing in all of science nomenclature, could easily double that figure. Only a small fraction of these totals, of course, are learned by any one of us.

Over the past 15 years, there has been an increasing number of important research studies, review chapters, and books on the learning and teaching of vocabulary. A review of many current surveys of L1 and L2 vocabulary reveals a fairly standard set of questions that are posed and then answered. For example, what does it mean to know a word? How many words are there in English? How many words can be learned from the reading context? Should vocabulary be taught directly? How many words can be taught? (Baumann & Kame'enui, 2004; Bogaards & Laufer, 2004; Folse, 2004; Hiebert & Kamil, 2005; Nation, 2001; Schmitt, 2000; Stahl & Nagy, 2006; Wagner, Muse, & Tannenbaum, 2007b). Furthermore, most publications addressing vocabulary learning make strong connections between reading and the learning of written forms of words. There are, of course, good reasons for this connection between

vocabulary and reading. This chapter departs somewhat from the format of other chapters in this book – it addresses the questions listed above (and others) in the process highlighting the promising relationship between reading and vocabulary.

GSRJ

The Reading and Vocabulary Relationship

In L1 reading research, many studies demonstrate the strong relationship between vocabulary and reading. Thorndike (1973), in a study of reading in 15 countries (and with over 100,000 students), reported median correlations across countries and age groups of between $r = .66$ and $r = .75$ for reading and vocabulary. Stanovich (1986, 2000) has also reported on studies that support this relationship, and in his own research, he has reported strong correlations between vocabulary and reading for third- through seventh-grade L1 students ($r = .64$ to $r = .76$). In fact, Stanovich (1986, 2000) makes a strong argument for a reciprocal causal relation between reading and vocabulary. That is, vocabulary growth leads to improved reading comprehension, and amount of reading leads to vocabulary growth. (See also Beck &McKeown, 1991; Biemiller, 2005; Roth, Speece,&Cooper, 2002; Stahl & Fairbanks, 1986; Wagner, Muse, &Tannenbaum, 2007a.) Then we commented as well on research by Hart and Risley (1995) and Snow et al. (2007) that demonstrates the strong role of early vocabulary learning in later reading achievement, describing the importance of vocabulary learning from the age of one to its impact on reading at the age of 16 (tenth grade).

The studies above have shown the relationship between vocabulary knowledge and reading comprehension. This current study has set out to consider the effect of vocabulary knowledge and background knowledge on a test of reading comprehension in a foreign language. It is understood that students need to recognize the meaning of the words so that they can fully understand the reading passage in a foreign language. Students with high levels of vocabulary knowledge will be able to decode and understand the reading passage better than students with low levels of vocabulary (Nation, Clarke, Marshall, & Durand, 2004).

METHODOLOGY

As we have already stated that the chief objective of the present study is to examine the performance of the students at Community College for Girls in reading comprehension against their background knowledge or prior vocabulary. According to the literature review, both background knowledge and vocabulary knowledge will help students increase their overall reading comprehension. Therefore, the main goal of this study is to find out

- 1) whether there is a difference in the reading comprehension scores when the students are familiar with the background knowledge of the reading passage, and
- 2) whether there is a difference in the reading comprehension scores when students are familiar with the vocabulary knowledge of the reading passage.

Population

The number of participants who were taken as a sample has amounted to 150 undergraduate students at Community College for Girls, King Khalid University. The participants have equally been divided into two groups. One group (50) was provided with a list of words (vocabulary) of the passage they were to go through and provide answers. The other group comprising 50 students were not furnished with such a list.

Analysis

The analytical process adopted for the present study has been ANOVA was used to evaluate whether the results of the tests significantly differed between the three groups. First, the Le-vene’s Test of Equality of Error Variances was used to check for homogeneity of variance among the three groups. In the Levene’s Test of Equality of Error Variances, the Sig. value (0.324) was greater than our Alpha value (.05); therefore, we failed to reject the Null. Thus the groups were not significantly different from each other so the variances were equal (see Table 1).

F	df1	df2	Sig
1.134	2	156	.324

Table 1: Levene’s Test of Homogeneity of Variances

		Control	Background	Vocabulary
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N	Valid	50	50	50
	Missing	0	0	0
Mean		56.7200	57.5600	70.0000
Std. Deviation		2.27677E1	24.59398	19.41491

Table 2: Dependent variable score

In the results of the one-way analysis of variance, the overall ANOVA was significant, $F(2,156) = 19.821$, $p = .000$. Since the p value is less than $.05$, we reject the null hypothesis (see Table 3). Because the overall F was significant, a post hoc test was used to evaluate pair-wise differences among the means.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
background	Between Groups	25975.570	31	837.922	4.118	.001
	Within Groups	3662.750	18	203.486		
	Total	29638.320	49			
vocabulary	Between Groups	18380.500	31	592.919	119.246	.000
	Within Groups	89.500	18	4.972		
	Total	18470.000	49			

Table 3: ANOVA Summary Table

A Post Hoc Test was used to determine if there were any significant differences in the reading vocabulary scores between the three groups in the study. Using Tukey's HSD, a significant difference at the $.05$ alpha level was found between the vocabulary knowledge group and the control group. There was also a significant difference at the $.05$ alpha level between the vocabulary knowledge group and the background knowledge group. However, the reading comprehension score for the background knowledge group (Group B) was not significantly different from the score for the control group (see Table 4).

Paired Differences

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
background control	-.84000	10.64714	1.50573	-2.18588	3.86588	.558	49	.579
vocabulary background E1	-1.24400	12.75701	1.80411	8.81450	16.06550	6.89549	.000	.000
vocabulary control E1	1.32800	7.13725	1.00936	11.25161	15.30839	13.157	49	.000

Based on observed means, * $p < .05$

DISCUSSION AND CONCLUSION

As we have already stated that the chief objective of the present study is to examine the performance of the students at Community College for Girls in reading comprehension against their background knowledge or prior vocabulary. Now judging by the above analysis we can safely admit that prior knowledge of vocabulary is essential in enhancing one's reading comprehension ability. Students should be urged to do a vast amount of reading in different topics in order to be able to understand written texts and produce similarly written ones.

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