The Relationship between Depth of Vocabulary Knowledge and Reading Comprehension of Iranian EFL Learners

Davoud Abedi *

M.A, University of Guilan, Iran

Abstract

The purpose of this study was to investigate the role of vocabulary knowledge and reading comprehension among Iranian EFL learners. The participants in this study were 50 EFL learners who were selected randomly from among intermediate learners in Adib Language Institute in Ardabil, Iran. To collect data, learners were given two tests. One of them measured the depth of vocabulary knowledge (WKT), and the other one was a reading comprehension test which required them to read different passages and answer multiple choice questions. The results of this study showed that there was a strong positive relationship between depth of vocabulary knowledge and reading comprehension skill. The implications of this study can be that teachers and learners should take into account the role of vocabulary knowledge depth in their teaching, and learning, respectively.

Keywords: Vocabulary depth, reading comprehension, vocabulary knowledge

INTRODUCTION

Vocabulary plays a crucial role in the process of language learning. Its role has been established as an important factor affecting reading ability of learners in both L1 and L2 (Qian, 1998, 1999, 2002). Many researchers believe that reading improves language development, i.e., the more a learner reads different texts, the better his vocabulary knowledge and reading ability will be. It also helps them to improve their spelling and writing skills (Harmer, 2007). Most of the researchers accept that vocabulary learning is a very important aspect of L2 learning (Knight, 1994) and according to Schmitt (1997) vocabulary learning is an inseparable part of mastering an L2. According to Stahl (1983), the relationship between word knowledge and reading ability is one of the best documented relationships in this area of research.

Anderson and Freebody (1981) believed that a learner's vocabulary knowledge can be the crucial factor which predicts his understanding of a text. Reading is a dynamic and complex process and L2 reading is even a more complex one. Reading comprehension has regularly been considered as a critical factor to the academic success (Grabe & Stroller, 2002). The most crucial element determining difficulty of a text is vocabulary load. Haynes and Baker (1993) concluded that the most important hindrance for L2

learners is not the lack of reading strategies but inadequate vocabulary knowledge in the target language. From among the three essential elements of a language, i.e., sounds, grammar, and lexicon, vocabulary knowledge has a very vital role in its development. In fact, it is not possible to understand and produce language without understanding the meaning of vocabularies. Students may be able to decode and read easily, but knowing the meaning of words in a text is very crucial to reading comprehension.

Regarding receptive and productive dimensions of vocabulary knowledge, Nation (2000) provided a model composed of three categories: 1) formal aspect such as spoken form, written form, and word parts, 2) semantic aspect such as form and meaning, concept, reference and association, and 3) functional aspect such grammatical and collocational behavior of the word and constraints on use such as stylistic, register, and frequency of the word.

Qian (2002) proposed a framework regarding the construct of word knowledge composed of four interrelated aspects: 1) size of vocabulary which refers to the number of words which a learner has at least some shallow knowledge; 2) depth of word knowledge which includes all lexical characteristics such as phonemic, graphemic, morphemic, syntactic, semantic, collocational and phraseological properties; 3) lexical organization which refers to storage, connection, and representation of word in the mental lexicon of the reader; and 4) automaticity of receptive-productive knowledge which refers to all fundamental processes to access vocabulary knowledge for both receptive and productive purposes such as phonological and morphemic encoding and decoding, access to syntactic and semantic features of the mental lexicon. These four dimensions are internally connected and interact with each other in all fundamental processes of vocabulary development. The importance of different factors in these aspects would vary in various processes.

There are some researchers who have a very similar view regarding vocabulary knowledge. For example, Qian (2000) proposed that word knowledge includes two aspects of breadth and depth of vocabulary knowledge. There are different definitions about these two constructs (for example, Nassaji, 2004), but here depth of word knowledge represents the quality of a learner's vocabulary knowledge, i.e., how well a learner knows a word or a set of words.

Reading is a very complex and dynamic process that prerequisites many various skills. Hancock (1998) claimed that in reading "comprehension involves understanding the vocabulary, seeing relationship among words and concepts, organizing ideas, recognizing the author's purpose and intention, evaluating the context, and making judgments" (p. 69). Because of this complexity, researchers have studied reading comprehension from many different perspectives. Some of them have looked at the influence of vocabulary knowledge on reading comprehension (Alderson, 2000; Joshi & Aaron 2000).

Joshi and Aaron (2000) found that word knowledge was an effective and strong predictor of reading comprehension. Martin-Chang and Gould (2008) found that a

relationship between vocabulary and comprehension and also between reading and primary print knowledge. Word knowledge is necessary in reading comprehension. According to Qian (2002) vocabulary knowledge helps learners to decode the input (written form) which is an essential part of reading skill. Lack of sufficient word knowledge will be a hindrance for individuals in comprehending the meaning of the text.

Garcia (1991) found that lack of familiarity with vocabulary knowledge in test passages was an important element affecting Latino bilinguals of grades fifth and sixth on a reading comprehension test. Snow (2000) found that the strength of the relationship between word knowledge and reading ability of Kindergarten students increased as their grade level progressed.

Over the last fifteen years, vocabulary knowledge has been represented as one of the main components of language proficiency in L1 and L2 learning. Nowadays, word knowledge is the paramount factor in language proficiency and success in school due to its strong relation with text comprehension (Berhadt, 2005). Thus, the present study will investigate the correlation between vocabulary depth (quality) and reading comprehension among Iranian EFL learners.

RESEARCH QUESTION AND HYPOTHESIS

- *Q*. Is there any relationship between depth of vocabulary knowledge and reading comprehension?
- *H01*: There is no relationship between EFL learners' depth of vocabulary knowledge and their reading comprehension ability.

METHOD

The research employed a descriptive and quantitative approach to collect and analyze data. Two sets of tests were used to elicit the required information across from a sample of 50 Iranian EFL learners.

Participants

The participants of this study were Iranian EFL learners from Adib Foreign Language Institute in Ardabil, Iran. The sample in this included 50 male and female adult language learners (25 male, 25 female). Their age ranged from 20 to 25. As not all the classes in this institute were appropriate for the purpose of this study regarding the learners' proficiency level, age, and so on, opportunity or convenience sampling (non-probability sampling) was selected because of the easy accessibility to samples by the researchers and the willingness and availability of participants. In order to overcome the limitations of this technique, the researchers selected only those participants that were deemed to be appropriate and to represent the target population of EFL learners.

Instruments

There are different research instruments to gather the required data, but for this study the researcher used two instruments to collect the required data: 1) Word Association Test (WAT), and (2) Reading Comprehension Test (the academic reading section of the IELTS).

Procedure

These tests were administered during two sessions. Before taking the tests, learners were informed of the major aim of the study and they were told that their performance on the test would not influence their outcome during and at the end of the course. In the first session, the word association test was administered to the learners for which they were told to read each of the target words and then select four closely associated words. The time limit for test completion was 25 minutes. In the second session, the reading comprehension test was given. The learners were informed to mark the answers on the answers sheet and it was told to them that they will not be penalized for wrong answers. The time limit for this test was 35 minutes.

Data Analysis

In order to analyze the collected data, the SPSS software was used and one-tailed Pearson product moment was used for statistical analyses. In order to find any possible relationship between the variables, one tailed product-moment correlations were used.

RESULTS

Descriptive Statistics of Participants' performance in DVKM and RCT

After the process of data collection, the researcher analyzed the collected data. Table 1 represents the descriptive statistics of the learners' performance on the instruments.

Table 1. Results of Descriptive Statistics of Vocabulary Depth and Reading Comprehension

Variables	N	Mean	Std. Deviation	Min. Score	Max. Score
DVKM	50	97.3	10.62	65	125
RCT	50	14.66	4.25	7	25

This table shows the participant's overall performance on the depth of Vocabulary Knowledge Measure (DVKM) and the Reading Comprehension Test.

In order to determine the relationship between the independent variable (depth of vocabulary knowledge) and the dependent variable (reading comprehension), correlation coefficient between these two variables calculated at the significance level of 0.5. The results are shown in Table 2.

Table 2. Pearson Correlation between the Vocabulary Depth and Reading Comprehension

Variable	DVK	RC
DVK	1	.736**
RC	.736**	1

** Correlation is significant at the 0.01 level (2-tailed).

Table 2 represents the correlation between scores of the DVK and RC in order to show the strength of association between the two research variables. As it can be seen, the independent variable of depth of vocabulary knowledge had a significant correlation with the dependent variable of reading comprehension ($r = .73$, $p < .01$) which implies that deeper word knowledge help Iranian EFL learners to comprehend texts easily and fluently.

As the results show, one can see that there is a significant relationship between depth of word knowledge and reading comprehension, and can predict the future performance of learners on reading comprehension test. The Pearson correlation coefficient which obtained for DVK and RC was higher than 0.70 ($p<0.05$), i.e., there was a high and positive correlation between the scores on word knowledge and reading comprehension. The results of this study correspond with the results of the study conducted by Gelderen (2004) that there was a strong relationship between word knowledge and reading comprehension.

CONCLUSION

With regard to the relationship between depth of word knowledge and reading comprehension, the results established a high and positive correlation, i.e., the deeper the learners' knowledge about the words, the better they will comprehend the texts. As the results show, depth of vocabulary knowledge is a crucial factor regarding reading performance of learners and by implication we can say that those who have a deeper knowledge of words (quality) will outperform those who know more words (quantity).

Implication of this study can be that by understanding learners' word knowledge and reading ability, we can easily evaluate their reading performance on tests. If we want to help them to improve their reading comprehension, we should consider vocabulary depth as a crucial component of EFL syllabus, i.e., we should provide different aspects of the meaning of a word besides its literal and lexical meaning (collocations, associations). Thus, we should help learners and ask them to read many different types of reading materials not only for the sake of learning language, but for the sake of real purposes, and also help them to know how to read authentic materials for authentic purposes in order to enhance their worldview and take pleasure of reading. Thus it is incumbent upon the teachers to provide the best materials according to the learners' needs in order to help them to increase their vocabulary depth.

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