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The impact of vocabulary level on EFL reading comprehension performance

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ABSTRACT

The present study examined the prevalence of vocabulary level on reading comprehension performance among EFL language learners. The ultimate intention was to determine the association between levels of vocabulary knowledge as well as was to clarify the relationship among vocabulary knowledge on reading comprehension performance of EFL Iranian students on subtest of VLT and IELTS. The quantitative data were collected from 220 EFL Iranian adult students at the beginning of second semester of 2011in BAHAR institute, Shiraz, Iran. The Vocabulary Levels Test (VLT) and Reading Comprehension Test (IELTS) were performed in one session as research instruments. The findings indicated that there were positively relationship among different levels of vocabulary levels test and also test score on vocabulary size/breadth of vocabulary knowledge, and reading comprehension were positively correlated.

Introduction

Vocabulary knowledge performs a prominent role in future possibilities and people's lives (Beck, McKeown, & Kucan, 2002). Following the performance of English second/foreign language readers' encounter with strange vocabulary; researchers have commented on the prominent role of vocabulary as an interpreter of general reading skill (Nation, 2001). Indeed, ESL/EFL readers frequently stated lack of sufficient word understanding as one of the major barriers to content comprehension so vocabulary load is a very important cue of text complexity. Likewise, Haynes and Baker (1993) concluded that the most important disadvantage for L2 readers is not the lack of reading comprehension practice, but the inadequate use of English vocabulary. To a large extent, what these studies reveal is that the threshold for reading comprehension is lexical. Lexical issues will, hence, prevent successful comprehension. Laufer (1998) and Qian's (1999, 2002, 2004) have revealed so, by research findings on the association among vocabulary breadth/size and reading comprehension; which resulted in a fairly high relationship among them. So, in 1996, Meara proposed VLT the nearest thing we have to a standard test in vocabulary knowledge.

A recent study on vocabulary size declared the prominent role of the breadth of vocabulary knowledge in performance of reading comprehension. Over two decades, researchers have depicted which breadth test of vocabulary knowledge can very well predict success in reading, writing, general proficiency, and academic achievement (Nation & Meara, 2002; Laufer & Goldstein, 2004). Likewise, Nation's vocabulary levels test has been verified to be a useful and credible analytical tool in examining L2 learners' vocabulary size (Qian, 1999; Read, 2000; Nation, 2001; Schmitt & Clapham, 2001; Koda, 2005) and has been widely applied by some researchers to estimate EFL/ESL learners' vocabulary size (Zahar, Cobb, & Spada, 2001; Webb, 2005; Qian, 2008).

The association among the vocabulary knowledge and reading comprehension is dynamic and difficult. The upsurge of the role of vocabulary in foreign language acquisition went hand in hand with a growing interest in vocabulary testing in second language acquisition research. Meanwhile, researchers have been able to ascertain that the breadth/size of one's vocabulary appears to be a determining factor for second language learning (Meara, 1996). Obtaining a sufficiently large vocabulary familiarity seems to correlate strongly with other linguistic competences in the target language. Therefore, much recent work on vocabulary testing has focused on estimating how many words the learners know in their L2 (Laufer, 2003). To accomplish this goal, vocabulary breadth/size tests have been developed. These are assumed on the belief that the learners require a particular rate of vocabulary in order to be able to play in the target language, independently (Alderson & Banerjee, 2001).

On the other hand, The International English Language Testing System (IELTS) is an international standardized test for assessment of English language proficiency. IELTS was established in 1989, and is jointly administered by University of Cambridge ESOL Examinations, the British Council, and IDP Education Pty Ltd. In 2007, IELTS was investigated further over a million candidates in a single 12 months period for the first time ever, making it the world's most accepted English language test for higher immigration and education.

Moreover, interest in the association of vocabulary knowledge and reading comprehension has a lengthy history in the research of second/foreign language reading. Consequently, lexical issues have prevented successful comprehension. The current study intended to examine the association between the breadth/size of vocabulary knowledge and EFL reading comprehension performance uses subtests of VLT and IELTS.

Vocabulary Levels Test & Reading Comprehension

A recent study on vocabulary size declared the prominent role of the breadth of vocabulary knowledge in performance of reading comprehension. Over two decades, researchers have depicted which breadth test of vocabulary knowledge can very well predict success in reading, writing, general proficiency, and

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academic achievement (Saville-Troike, 1984; Nation & Meara, 2002; Laufer & Goldstein, 2004). Likewise, Nation's vocabulary levels test has been verified to be a useful and credible analytical tool in examining L2 learners' vocabulary size (Qian, 1999; Read, 2000; Nation, 2001; Schmitt & Clapham, 2001; Koda, 2005) and has been widely applied by some researchers to estimate EFL/ESL learners' vocabulary size (Cobb, 1999; Zahar, Cobb, & Spada, 2001; Webb, 2005; Qian, 2008).

In 1993, a study by Coady, Magoto, Hubbard, Graney, and Mokhtari was conducted among 79 students studying English in a university academic preparation program revealed that two experimental groups, which had received special training in high frequency vocabulary, achieved better ESL reading comprehension standing at the end of the experiments than did a control group which had not received such a type of treatment. The study was carried out to verify the proposition that there is a positive association among high-frequency vocabulary knowledge and reading proficiency. According to the findings of their study, Coady et al. (1993) argued that special training in the 2000 most frequent English vocabulary items could improve learners' reading proficiency.

Yu (1996 as cited in Chen, 2011), in his study of Chinese and Japanese university students' use of English motion verbs, used the vocabulary levels test to determine the initial vocabulary size of his participants. Yu reported a very high correlation between VLT and the TOEFL/Michigan test items, thus confirming the concurrent validity of the VLT for his study. Besides, investigating the impact of vocabulary on ESL reading, Qian (1999) found a high correlation among the vocabulary levels test scores and scores on the reading subset of the IELTS. In a similar research, Hu and Nation (2000) investigated the association among context coverage, that is to say the percentage of running words in the context displayed by the readers, and reading comprehension for non-native speakers of English with a literature text. They found that 98% text coverage (1 unknown word in 50) would be required for the majority of learners to achieve adequate comprehension.

In 2006, a study by Huang was carried out which used VLT as a reliable instrument to measure ESL Chinese students' breadth/size of vocabulary knowledge. Participants were 24 university students who were attending either McGill University or Concordia University, the two English speaking universities in Montreal, Quebec, Canada. The results showed a high reliability (Cronbach Alpha) of VLT in this study too. Similarly, Golkar and Yamini in their study titled "vocabulary, proficiency and reading comprehension" (2007), used VLT to estimate vocabulary size of 76 male and female undergraduate students majoring in literature, English language, and engineering studying at Iran, Shiraz University.

Quite recently, Zhang and Annual (2008) explored the role of vocabulary knowledge in reading comprehension with 37 secondary students in Singapore. The researchers used VLT to gauge language learners' vocabulary knowledge in correlation to the various assessments planned to examine their performance of reading comprehension and summary competencies. Findings suggested that learners' vocabulary knowledge at the 2000 word and the 3000 word levels was related to their reading comprehension. Important relationship produced only for the short-answer questions, but not for the summary. The researchers suppose that various task formats might have influenced reading comprehension performance.

In another similar study which was carried out by Ahmad Azman Mokhtar in 2010, the VLT was administered among 360 Malaysian diploma students at University Technology (MARA), Perlis. Although the researchers were not mainly concerned with the students' total score on the test, they were concerned in whether the students knew an adequate number of words with high-frequency or not. Hence, working within this context, the present researchers deemed it indispensable to launch a study where vocabulary is paid little heed to in most reading comprehension courses.

Research Methodology

The approach of the present study was quantitative. The purpose of it is to improve and apply hypotheses in connection to natural phenomena. Therefore, measurement is a major key in quantitative research because it depicts the relationship between the data and observation (Cohen et al., 2004). In order to research the instrument that can be administrated to a large number of respondents, a correlational design was selected (Babbie, 2007). In correlational research, major interest of researcher is to identify whether two or more variables covariate, and, in this case, to launch the directions, magnitudes, and forms of the remarked associations.

This study is conducted at BAHAR institute in Shiraz, Iran among 220 language learners with range of ages are enrolled in advanced level of English proficiency. The data of this study were collected from the main branch of BAHAR institute which has the most EFL learners in advanced level. All of the participants have taken the same questionnaire, the Vocabulary Levels Test (VLT) was chosen to examine the breadth/size of vocabulary knowledge, and the reading section of IELTS were applied to examine the reading comprehension performance. The Instruments measured both dependent and independent variables. This vocabulary test was created and revised by Nation (1983) and the reliability of second version in all the various levels was reported ranging from .92 to .96 by many researchers. It consists of five word levels: 2000, 3000, 5000, 10000, and UWL (University Word List) and composed of 10 test items at each level. In the current research, in accordance with the purpose of this study, the UWL level test was eliminated from the VLT test. So with regard to the point that all participants in this study were not in the same academic level, the university word level list was not administered.

Moreover, the academic reading section of IELTS test (The International English Language Testing System) was chosen to measure the learners reading comprehension performance. This is a standardized multiple-choice reading comprehension testing system which was introduced in 1989. The academic reading module consists of three sections and 40 questions according to a series of 3 texts. Participants had 60 minutes to complete the test.

To carry out the statistical analysis, Statistical Package for Social Sciences (SPSS), version 16.0 for Windows Vista Home Premium, was applied to run statistical analysis of the two instruments. With the intention to this research percentage, frequency, mean, standard deviations were conducted, as well. To explore the inter-correlations among vocabulary breadth/size test (VLT) and reading comprehension test (reading comprehension section of IELTS), two-tailed Pearson's product moment correlation coefficient were employed.

Ho1:

There is no significant relationship between the four sections of Vocabulary Levels Test (VLT).

Ho2:

There is no significant relationship between EFL learners' vocabulary breadth/size and their reading comprehension performance subtest of IELTS.

Results

For the first part of data analysis a two-tailed Pearson product moment correlation coefficient analysis was applied to

investigate the association among variables, which are depicted in Table 1. Statistic used is perason's product-moment correlation coefficient (r) is concerned with relationships between two variables and to determine the strength and direction of the relationships and ranges between ±1 and stated about the relationship direction. Guilford (1956) provided a guide in the interpretation of the relationship strength among variables. Based on Guildford Rule of Thumb the strength of relationship is presented from negligible (less than .2), low (.2 to .4), moderate (.4 to .7), high (.7 to .9), and very high (.9 and more than). Two asterisks (**) revealed that there is a significant correlation at .01 level.

In order for the correlation to be considered as significant, the p-value had to be less than .01. The results revealed that the inter-correlations among the four sections of VLT test are all both positive and statistically significant.

Table 1. Correlation between scores on four sections of VLT (n=220)

VLT Section	Score 2000	Score 3000	Score 5000	Score 10000
Score 2000	1.000			
Score 3000	.949**	1.000		
Score 5000	.684**	.674**	1.000	
Score 10000	.655**	.633**	.970**	1.000

**Correlation is significant at the 0.01 level (p<0.01)

As demonstrated in above table, the correlation between four sections ranged from .633 to .970 which suggested a moderate to high correlation. The findings displayed in table 4.2 revealed that the Pearson correlation coefficient (r) among 2000 level and 3000 level was .949 and significant level or p-value was .000 in the 2-tailed test. In other words, there is a very high relationship (r=.949, p<0.01) among the 2000 and 3000 word levels tests. The correlation coefficient between the 5000 and 10000 word levels tests was .970, and the significance level was .000 in the 2-tailed test (r=.970, p<.01), which means that participants' scores on the 5000 and 10000 word levels tests were positively and significantly correlated. Statistically, hence, the correlation between two tests was of a highly strong level according to Guilford Rule of Thumb table (1956).

Additionally, the findings indicated that the participants' vocabulary knowledge scores on the 2000 and 5000 word levels were significantly correlated with a slight difference as their scores on the 3000 and 5000 word levels correlated. In other words, the correlation coefficient scores for both sets of tests were statistically significant and positive. In regarding to 0.01 level of significance, the p-value was equal to .000 (r=.684, p<0.01) for the correlation between 2000 and 5000, and (r=.674, p<0.01) for the correlation between 3000 and 5000. Therefore, the 5000 word level test was significantly correlated with 2000 and 3000 word levels tests and also based on Guilford Rule of Thumb table (1956), it was a moderate association.

Finally, as it is shown in Table 4.2, learners' scores on 2000 and 10000 word levels tests were positively and significantly correlated. Besides, the scores on correlation coefficient analysis showed a moderate relationship between these two word levels tests (r=.655, p<0.01). The correlation between 3000 and 10000 word levels tests was also positive and significant (r=.633, p<0.01), and it was a moderate association based on Guilford Rule of Thumb table (1956).

In conclusion, the correlation between 2000, 3000, 5000, and 10000 word levels tests were all significant and positive. So based on the scores derived from the Pearson correlation analysis and r-value, it can be inferred that the first hypothesis is rejected. Therefore, there is significant relationship between the four sections of Vocabulary Levels Test (VLT). In other words, it can be concluded that if a learner obtains a high score at for example the 5000 or 10000 word levels, s/he has definitely been proficient in lower levels as well, i.e., 2000 and 3000 word levels.

It is so obvious that vocabulary acquisition beyond the 2000 word level is needed to provide a basis for comprehension in any English text and there is no compromise on that. The strong consistency of the scores among word levels of VLT is evidence of their being consistent in an evaluation of their own vocabulary knowledge. The findings are important in the design of the vocabulary component of a teaching curriculum that instructors be able to determine the state of their learners' vocabulary knowledge and draw on a variety of vocabulary measures to investigate the nature of vocabulary growth.

In light of the results of the Pearson correlation analysis (Table 2.), scores on the two language tests (IELTS and VLT) were positively correlated with each other. So the results of scores on these two tests (r=.834, p<0.05) indicates that there is a highly significant relationship among EFL learners vocabulary breadth/size and their reading comprehension performance subtest of IELTS, according to the Guilford Rule of Thumb table (1956), which means the second hypothesis is also rejected.

Table 2. Correlation between Scores on the VLT and IELTS (n=220)

TESTS	IELTS
Vocabulary Levels Test (VLT)	.834**

**Correlation is significant at the 0.05 level (2-tailed)

This result lends support to many researchers including (Laufer, 2003; Meara, 1997; Read, 2000; Nation, 2001) and many more who argued for the claim of significant function of breadth/size of vocabulary in reading comprehension. The results in the current research also related to Laufer (2003) and Qian's (1999, 2002, 2004) research on the association among the breadth/size of vocabulary knowledge and reading comprehension which indicated comparatively high correlation between the two factors, ranging from 0.50 to 0.78. As a result, it can be concluded that if a learners' vocabulary breadth/size is at a high level, s/he will have the high reading comprehension performance as well. In other words the higher vocabulary breadth/size level will lead to better reading comprehension performance and vice versa.

Conclusion

The findings illustrated that the correlation between four sections ranged from .655 to .970; in other words, if a learner reaches the criterion at a higher level, as an example, the 5000 word level, s/he has almost certainly mastered the 2000 and 3000 levels as well (Read, 1988). The findings of Read and Chapelle's (2001) study consider this test as a selective, discrete, context-independent test which is "designed to measure learners' vocabulary size as a trait without any reference to any particular context of use" (p.8). Findings of the National Reading (Panel, 2000, as cited in Pearson, Hiebert, & Kamil, 2007) indicated that there is a firm and strong relationship among the levels of VLT in particular texts and performance on experimenter designed comprehension examines extracted from those same contexts. This mentioned reports are also supported by the current research results.

The findings provided by this research have some implications for continued attention to learning, teaching, assessing, and researching vocabulary: For one thing, the statistics generated from this research have made a strong case for the continued adoption of vocabulary in language teaching and assessment. In terms of proficiency levels, if the

performance of the participants on vocabulary knowledge is classified into three different levels, some item types are then more associated with vocabulary knowledge at certain levels. This is again truer about IELTS reading subtest. This implies that some item types are better processed when EFL learners reach certain levels of vocabulary proficiency. Given that, the indiscriminate inclusion of all item types in one lesson in course books, irrespective of the vocabulary knowledge level of EFL learners is called into question. That is, if we come to assume that language learners will better process a specific item type once they reach a specific level of vocabulary proficiency, then the question is whether it is appropriate to offer any kind of reading item type to them in their course-books and in classrooms.

There does not appear to be any available vocabulary depth test that tests knowledge of multi-word expressions such as phrasal verbs, idioms, compound words, or lexical phrases. Such multi-word expressions are common in English, and often carry unique meanings that the individual words themselves do not. Such a test could be constructed based on a frequency analysis of a corpus. The test would also need to be piloted and evaluated for validity and reliability.

Reference

Ahmad Azman Mokhtar. (2010). Achieving Native-like English Lexical Knowledge: The Non native Story. Journal of Language Teaching and Research. 1(4): 343-352.

Alderson, J.C. & Banerjee, J. (2001) Language testing and assessment (Part 1) Stateof- the-Art Review. Language Testing 18, 213-236.

Babbie, E. (2007). The basics of social research 4th ed. Belmont, CA: Wadsworth.

Beck, I.L., McKeown, M.G., & Kucan, L. (2002). Bringing words to life: Robust vocabulary instruction. New York: Guildford Press.

Chen, K. Y. (2011). The Impact of EFL Students' Vocabulary Breadth of Knowledge on Literal Reading Comprehension. Asian EFL Journal . 51: 30-40.

Coady, J., Magoto, J., Hubbard, P., Graney, J., & Mokhtari, K. (1993). High frequency vocabulary and reading proficiency in ESL readers. In T. Huckin, M. Haynes & J. Coady (Eds.), Second language reading and vocabulary learning (pp. 217–228). Norwood, NJ: Ablex.

Cobb, T. 1999. Vocabulary sizes of some City University students. Journal of the Division of Language Studies of City University of Hong Kong. 1: 59-68.

Cohen, L., Manion, L. and Morrison, K. R. B. (2004): A Guide to Teaching Practice (fifth edition). London: Routledge.

Golkar, M., & Yamini, M. (2007). Vocabulary, proficiency and reading comprehension. The Reading Matrix. 7 (3): 88-112.

Haynes, M., & Baker, I. (1993). American and Chinese readers learning from lexical familiarization in English text. In T. Huckin, M. Haynes, & J. Coady (Eds.), second language reading and vocabulary learning (pp. 130-152). Norwood, NJ: Ablex.

Hu, M., & Nation, I. S. P. (2000) Unknown vocabulary density and reading comprehension. Reading in a Foreign Language. 13(1): 403-430.

Huang, H. F. (2006). Breadth and depth of English vocabulary knowledge: which really matters in the academic reading performance of Chinese university students? McGill University (Canada) Press.

Koda, K. (2005). The effects of transferred vocabulary knowledge on the development of L2 reading proficiency. Foreign Language Annals. 22: 529-542.

Laufer, B. & Goldstein, Z. (2004). Testing vocabulary knowledge: size, strength, and computer adaptiveness. Language Learning. 53(3): 399-436.

Laufer, B. (1998). The development of passive and active vocabulary in a second language: Same or different? Applied Linguistics. 19(2): 255-271.

Laufer, B. (2003). Vocabulary acquisition in a second language: do learners really acquire most vocabulary by reading? Canadian Modern Language Review. 59 (4): 565-585.

Meara, P. (1996). The dimensions of lexical competence. In G. Brown, K. Malmkjaer, & J. Williams (Eds.), Performance and competence in second language acquisition (pp. 35-53). New York: Cambridge University Press.

Nation, I. S. P. (1983). Testing and teaching vocabulary. Guidelines. 5(1): 12-25.

Nation, I. S. P. (2001). Learning vocabulary in another language. Cambridge, England: Cambridge University Press.

Nation, P., & Meara, P. (2002). Vocabulary. In N. Schmitt(Ed.), An introduction to applied linguistics (pp. 35-54). New York: Oxford University Press Inc.

Panel, L. (2000). Vocabulary knowledge. In J.T. Guthrie Comprehension and teaching: Research reviews (pp.77-117). Newark, DE: International Reading Association.

Pearson, P. D., Hiebert, E. H., & Kamil, M. L. (2007). Vocabulary assessment: What we know and what we need to know. Reading Research Quarterly. 42(2): 282-296.

Qian, D. D. (1999). Assessing the roles of depth and breadth of vocabulary knowledge in reading comprehension. Canadian Modern Language Review. 56: 282-307.

Qian, D. D. (2002). Investigating the relationship between vocabulary knowledge and academic reading comprehension: an assessment perspective. Language Learning. 52: 513-536.

Qian, D. D. (2004). Establishing parameters for assessing vocabulary. Language Assessment Quarterly. 1 (1): 57-61.

Qian, D. D. (2008). From single word to passages: Contextual effects on predictive power of vocabulary measures for assessing reading performance. Language Assessment Quartely. 5: 1-19.

Read, J. (1998). Validating a test to measure depth of vocabulary knowledge. In A. Kunnan (ed.), Validation in language assessment (pp. 41-60). Mahwah, NJ: Lawrence Erlbaum.

Read, J. (2000). Assessing vocabulary. Cambridge, England: Cambridge University Press.

Read, J., & Chapelle, C.A. (2001). A framework for second language vocabulary assessment. Language Testing. 18: 1-32.

Saville-Troike, M. (1984). What really matters in second language learning for academic achievement? TESOL Quarterly. 18 (2): 199-219.

Schmitt, N., & Clapham, C. (2001). Developing and exploring the behavior of two new versions of the Vocabulary Levels Test. Language Testing, 18: 55-88.

Webb, S., (2005). Receptive and productive vocabulary learning: The Effects of Reading and Writing on Word Knowledge. Studies in Second Language Acquisition. 27(1): 33-52.

Yu, L. (1996). The role of cross-linguistic lexical similarity in the use of motion verbs in English by Chinese und lapanese leamers. Unpublished Ed.D. thesis, University of Toronto.

Zahar, R., Cobb, T. and Spada, N. (2001). Acquiring vocabulary through reading: Effects of frequency and contextual richness. The Canadian Modern Language Review. 57 (4): 541-572.

Zhang, L. J., & Anual, S. B. (2008). The role of vocabulary in reading comprehesnion: The case of secondary school students learning English in Singapore. RELC Journal. 39: 51-76.