A study of English vocabulary level of II year engineering students

V.Rajasekaran[1] and P.Selvakumar[2]

[1]Department of English, Faculty of Engineering, EBET Group of Institutions, Natahakadaiyr, Kangeyam 638 108.
[2]Department of linguistics, Bharathiyar University, Coimbatore.

ABSTRACT

In higher education, no in-depth studies have been identified that investigate the vocabulary of Undergraduate Engineering students. This study investigated undergraduate students' English vocabulary with special reference to certain sociological factors in an Engineering college located in Tamilnadu, India. The research findings show that the students' vocabulary strength differs based on gender, locality of living, medium of instruction, general reading habit. Based on above mentioned factor hypotheses were formulated and tested in this research study and the findings have been given as the outcome of the study. The research results indicate that students are having only limited vocabulary and much focus to be given to vocabulary else students cannot develop their language proficiency.

Introduction

Words are building blocks of communication which is being quintessential part of professional qualification. Much damage in communication is happening due to student's poor vocabulary knowledge. Words are not only disturbing the communication but it is completely distorting communication process. Ultimate aim of every student is to get placed in reputed companies where they expect good communication skill as the important criteria for recruitment but students are unable to meet out this challenge owing to limited lexical knowledge that stands as the topmost hurdle in their life. Hence this paper explores original level of students vocabulary skill and discuss about the various factor involved in their vocabulary acquisition.

Review of Literature

G.S.Bahr et al (2001) conducted a research on "Bilingual Knowledge Maps (Bik-Maps) in Second Language Vocabulary Learning" The results indicate that BiK-Map learners outperformed other learners and the combination of spatial properties and semantic context creates the Bik-Map advantage.

Walters, JoDee (2004) investigated about "Teaching the use of context to infer meaning: a longitudinal survey of L1 and L2 vocabulary research". The research demonstrates that students benefit from having their attention drawn to the use of context, the question of how, if at all, they should be taught to deal with context is still unanswered.

John j. Pikulski et al (2004) "Teaching and Developing Vocabulary: Key to Long-Term Reading Success" It does seem hard to overstate the importance of vocabulary—not only for reading achievement but also for general social and economic success. The early years of a child's life have a profound influence on that child's language and vocabulary development, which in turn greatly influences school success. Children who live in poverty in their early years have much less verbal interaction with their parents and consequently begin school with far less vocabulary development than their more privileged peers. While the language gap doesn't widen once children from lower socioeconomic backgrounds enter the stimulating environment of school, that gap does not narrow. Research

suggests that it may not narrow because the vocabulary instruction offered is not sufficiently intense or effective.

Kiyomi Chujo et al (2005) carried out study on "Understanding the role of text length, sample size and vocabulary size in determining text coverage" The results of the study empirically demonstrate that text coverage is more stable when the vocabulary size is larger, the text length is longer, and more samples are used. It was also found that the stability of text coverage is greater from a larger number of shorter samples than from a fewer number of longer samples.

Jonathan Brown, et al (2002) "Automatic Question Generation for Vocabulary Assessment" Using data from Word Net, 6 types of vocabulary questions has been generated. Several forms, including word bank and multiple-choice has been used. It is suggested that these automatically-generated questions give a measure of vocabulary skill that correlates well with subject performance on independently developed human written questions. In this paper, we have described our work in automatically generating questions for vocabulary assessment.

Ismail Hakki Erten, et al (2008) studied about "A Comparative Look Into How To Measure The Effectiveness of Vocabulary Learning Strategies: Through Using Percentages or Correlation Coefficients" The study showed that employing percentage calculation as an indicator of strategy effectiveness can be a more realistic measure of the effectiveness. Its superiority comes from the fact that it allows researchers to treat discreet cases of vocabulary learning separately as opposed to the holistic treatment in correlation coefficients.

Stuart Webb et.al (2009) analyzed the "The Lexical Coverage of Movies" The scripts of 318 movies were analyzed in this study to determine the vocabulary size necessary to understand 95% and 98% of the words in movies. The movies consisted of 2,841,887 running words and had a total running time of 601 hours and 33 minutes and found that 3000 to 7000 word families have been used. The results showed that the children who encountered the target words while watching the cartoon had higher scores on a picture recognition task, and that five-year olds learned more words than three-year olds.

Chen, Shaoying (2010) conducted research on "The Application of SPSS in Analyzing the Effect of English Vocabulary Strategy Instruction". The research result indicates that the software of SPSS could correctly analyze the teaching effect of vocabulary strategy instruction in practical application, and the application of SPSS should be fully pushed in study of the foreign language teaching science to make it be the powerful assistant instrument for foreign language teaching researchers.

Ma Zhan-Xiang(2010) conducted research on "The Necessity of Intensifying English Vocabulary Teaching in the Remote Minority Area College English Teaching" His findings says that intensifying English vocabulary teaching in the remote minority area college, is quite necessary.

Moore, Chesney C (2010) "Nouns in Early Vocabulary Development" Children typically learn many more nouns than verbs early in vocabulary development. The cause of this "noun-bias" is unclear. One possibility is that caregivers use more nouns and prompt for nouns more often. That is, the noun-bias may be the result of input frequency.

Marzieh Rafiee et.al (2011) conducted study on "Structural Analysis of Lexical Bundles Across Two Types of English News Papers Edited by Native and Non-native speakers" Language learners often acquire second or foreign language as multiword sequences. These chunked expressions (named as lexical bundles, by Biber et al, 1999) may be used in different context, some of which do not match the way natives use them. The findings of this show that Iranian journalists used lexical bundles more frequently compared with native speaker journalists. Regarding structural classifications of bundles, Iranian journalists used the same categories of bundles as native speaker journalists did. The new subcategories of bundles found in newspaper register were added under the appropriate category. The results provide some interesting pedagogical implications for language teachers, EFL practitioners and EFL learners as well.

Size of the English vocabulary

Reports of the size of the English language in the popular press have a very wide range: from 400,000 to 600,000 words (Claiborne, 1983, p. 5), from a half million to over 2 million (Crystal, 1988, p. 32), about 1 million (Numberg & Rosenblum, 1977, p. 11), and 200,000 words in common use, although adding technical and scientific terms would stretch the total into the millions (Bryson, ··1990). This discrepancy is due largely to differing· definitions of a word, and so a study attempted to produce a more reliable estimate by using word families instead of words as the unit of counting.

Goulden, Nation, and Read (1990) counted the number of word families in *Webster's Third New International Dictionary* (1963), which is one of the largest nonhistorical dictionaries of English. Dictionaries such as this obviously cannot contain every current word family, but they are still the best resource available, and therefore estimates of the number of words in a language have usually been based on them. After excluding entries such as proper names and alternative spellings, Goulden et al. found that the dictionary contained about 54,000 word families.

How many words do native speakers know?

Mastery of the complete lexicon of English (and probably any other language) is beyond not only second language learners but also native speakers. Still, the amount of vocabulary the average native speaker acquires is prodigious. This is shown by studies that have estimated that English native- speaking

university graduates will have a vocabulary size of about 20,000 word families (Goulden et aI., 1990; D'Anna, Zechmeister, & Hall, 1991). Nation and Waring (1997, p. 7) review vocabulary size studies and conclude that the best conservative rule of thumb that we have is that up to a vocabulary size of around 20,000 word families, we should expect that [English] native speakers will add roughly 1,000 word families a year to their vocabulary size. This means that a [Ll] five year old beginning school will have a vocabulary of around 4,000 to 5,000 word families. This would be consistent with a 20-year-old university student having 20,000 word families

Research finding says that students' vocabulary sizes is very low and let us analyze the factors which affect their vocabulary learning. As per the objective this study five hypothesis have formulated and that has been tested and the results have been presented.

Statement of the Problem

The problem selected for the study may be stated as "A Study of Vocabulary Acquisition of II Year BE students" By undertaking this problem to study; we can find the Vocabulary Acquisition in relation to gender, locality, educational background, habit and etc.

Objectives of the Present Study

The following are the objectives of the present study "A Study of Vocabulary Acquisition of I Year BE students"

To study

1. The difference, if any, between Tamil Medium and English Medium students in respect of their Vocabulary Acquisition

2. The difference, if any, between Male and Female students in respect of their Vocabulary Acquisition

3. The difference, if any, among Rural and urban students in respect of their Vocabulary Acquisition

4. The difference, if any, between Reading and non-reading habit of students in respect of their Vocabulary acquisition

Hypotheses of the Study

The following hypotheses have been formulated.

1. There is a significant difference between Tamil Medium and English Medium students in respect of their Vocabulary Acquisition

2. There is a significant difference between Male and Female students in respect of their Vocabulary Acquisition

3. There is a significant difference among Rural and urban students in respect of their Vocabulary Acquisition

4. There is a significant difference between Reading and non-reading habit students in respect of their Vocabulary acquisition

Method of the Study

In the present study, normative survey method is employed to describe and interpret what exists at present. It involves some types of comparison or contrast and attempts to discover the relationship between existing non-manipulated variables. The normative study is one of the most commonly used approaches.

Sample of the Study

In the present study, samples were selected from II BE students of EBET Group of Institutions, Nathakadaiyur, Kangeyam, Tiruppur District, Tamilnadu. The data were collected from 45 students of the college, which were selected at random.

Tool Used In the Study

The tool used in the study was adapted from R.Goulden, P.Nation & J.Read (1990). How large can a receptive vocabulary be? Applied Linguistics11, 358-359.

Methods of Investigation

R.Goulden, P.Nation & J.Read Tool is used to conduct the study. Necessary details have been provided to the students before taking the test. The test was conducted for 45 minutes and the test taker comfort was maintained at ease to get unbiased results. Objective and purpose of the test was elucidated very clearly to get the utmost cooperation from students. The questionnaire contained 50 words where the students are asked to mark their known words and asked to verify their answers before submitting the answer sheets to ensure the reliability. Adequate care was taken to make the students to give the reliable answers by giving proper motivation. The researcher were present during the test and onsite help was also rendered to ensure the quality output of the test and the same was collected. The separate data sheet was circulated to collect the personal profile of the test takers which was designed by the researcher to cater the requirement and objective of the test.

Analysis and Interpretation

Any research is become valid only by the proper analysis and presentation of the data. The researcher has taken complete care to present his data utmost accurately. Initially student personal profile was entered into an MS Excel format by having collected from the test takers and the same was verified with the test takers before entering the test score. After the verification the test score was entered.

To get accuracy in the statistical analysis SPSS Version 11.5 software was used. It is widely being used as a reliable software for statistical analysis. To make sure the proper usage of the software, guidance from the experts were received by the researcher and after getting the data analyzed the same was checked with the expert for the accuracy. Standard deviation and all other descriptive analysis and comparative cross tables were taken using SPSS and the obtained data has been presented here as research outcome.

Table-1 Descriptive Statistics

	N	Minimum Score	Maximum Score	Mean	Std. Deviation
Total Students	45	2000	7500	4166.67	1283.638

Table-2 Score Grouping Table

		From	To
Valid	LOW SCORE	0	2500
	MEDIUM SCORE	2501	4999
	HIGH SCORE	5000	7500

Table-3 Vocabulary Distributions of the Total Students

		Frequency	Percent
Valid	LOW SCORE	4	8.9
	MEDIUM SCORE	32	71.1
	HIGH SCORE	9	20.0
	Total	45	

The present study finds that the mean value is 4166 and the standard deviation of the test is1283.638.The Range of Vocabulary is from 2000 to 7500. The highest 7500 words is secured by an English Medium Urban female student and the Lowest score is scored by a Rural English Medium Male Student. The complete vocabulary score was grouped into three levels as low, medium and high score and the range of the scores has been presented in the Table.2. The finding of the study says that around 71% have secured medium score (2501 to 5000) and 20% have scored high scores (5000 to 7500) and 9% scored low score.

Hypothesis 1

• There is a significant difference between Tamil Medium and English Medium students in respect of their Vocabulary Acquisition.

Table 3 Medium Cross Tabulation

		MEDIUM				Total
		TAMIL	PERCENT	ENGLISH	PERCENT	
MEAN		4465		3625		
Group Score	LOW SCORE	3	19	1	3	4
	MEDIUM SCORE	12	75	20	69	32
	HIGH SCORE	1	5	8	27	9
Total		16		29		45

Among 45 samples, there are 29 English medium students and 19 Tamil medium students and their mean is 4465 and 3625. All the three score levels show a big line difference especially English medium students are relatively high in the high score level and very less in the low score level whereas Tamil medium students are straight opposite. It clearly indicates the significant difference between English Medium and Tamil medium students.

Hence the hypothesis is rejected and it becomes null hypothesis.

It may be that the English Medium students have better opportunity and exposure to learn English vocabulary where Tamil medium students deprived of it. The reason for this, their continuous exposure to English and they have more scope to contact with English speaking ambience.

Hypothesis 2

• There is a significant difference between Male and Female students in respect of their Vocabulary Acquisition

Table 4 Boys/Girls Crosstabulation

		GENDER				Total
		BOYS	Percent	GIRLS	Percent	
Mean		3937		4275		
Group Score	LOW SCORE	2	12	2	8	4
	MEDIUM SCORE	13	76	19	68	32
	HIGH SCORE	2	12	7	25	9
Total		17		28		45

In the studied sample, boys and girls consisted of 29 and 16 respectively. The study shows that girls knew average of 4275 words and boys with average of 3937 words. All the three levels difference is marginal. Anyhow girls are better than their counterpart boys. But the difference is thin.

The difference is only marginal and not very significant so the hypothesis is accepted.

Hypothesis-3

• There is a significant difference between Rural and urban students in respect of their Vocabulary Acquisition

Table 5 Rural/Urban Cross Tabulation

		Rural/Urban				Total
		Rural	Percent	Urban	Percent	
Mean		4000		4553		
Group Score	LOW SCORE	3	11	1	6	4
	MEDIUM SCORE	21	81	11	57	32
	HIGH SCORE	2	8	7	37	9
Total		26		19		45

Amongst 45 samples, there are 26 Rural students and 19 Urban students and their average is 4000 and 4553. All the three levels scores indicate some difference hence the hypothesis is rejected and it becomes null hypothesis.

It may be the urban students have better opportunity and exposure to learn English vocabulary where rural students dispossessed it. Rural students have ample problems to their credit like no English teacher, Zero exposure, fear and anxiety about English.

Hypothesis-4

• There is a significant difference between Reading and non-reading habit students in respect of their Vocabulary acquisition

Table 8 Reading Habit Cross Tabulation

		READING HABIT				
		YES		NO		Total
Mean		4444	Per %	3981	Per %	Total
Group Score	LOW SCORE	0	0	4	15	4
	MEDIUM SCORE	16	89	23	85	32
	HIGH SCORE	2	11	0	0	9
Total		18		27		45

In the 45 samples, there are only 18 students having general reading habit and 27 students do not have general reading habit and their average is 4444 and 3981. It obviously shows difference hence the hypothesis is accepted.

It is quite noticeable that reading skill improves the vocabulary acquisition. Considering reading habit, students have scored better than non-readers.

Findings

This research study examined undergraduate II Year Engineering students' vocabulary. In general, students' vocabulary stock was very limited.

• Present study says that girls are having better vocabulary than boys

• English Medium students are better than regional medium students.

• Urban students' vocabulary is better than rural students

• Reading habit has great impact on students' vocabulary.

Limitations

Even though the investigator tried his best to make the study as successful as possible there are certain limitations. They are:

1. The Sample for the study is only 45 and it can be increased

2. The study has been conducted on the students belonging to I Year BE the same may be done to 2nd year to final year students.

3. Some more variables may be added for the further study.

References

Aitchison, J. (1987). *Words in the Mind: An Introduction to the Mental Lexicon*. Oxford: OUP.

Bahr, G. S. and D. F. Dansereau Bilingual Knowledge Maps(BiK-Maps) in Second-Language Vocabulary Learning. The Journal of Experimental Education 70, 1 : 5-24

Barnard, H. (1961). A Test of P.U.C. Students' Vocabulary in Chotanagpur. *Bulletin of the Central Institute of English,* Hyderabad.

Beglar, D. & Hunt, A . (1999). Revising and Validating the 2000 word level and University Word level Vocabulary Tests. *Language Testing, 16*, (2, 131-162).

Carter & McCarthy. (1988). *Vocabulary and Language Teaching. London:* Longman.

Celik Mehmet, (2003). Teaching Vocabulary through Code-Mixing. *ELT Journal*, 57, (4, 361-371).

Chen, Shaoying. (2010)The Application of SPSS in Analyzing the Effect of English Vocabulary Strategy Instruction. English Language Teaching 3, 2: 27-29.

Coady, J and Huckin, T. (eds.), (1997). *Second Language Vocabulary Acquisition*. Cambridge: CUP.

Cohen, A. D. (1987). The Use of Verbal and Imagery Mnemonics in Second-language Vocabulary Learning. *Studies in Second Language Acquisition*, 9, (43-62).

Deshpande, H. V. (1987). Teaching English in Rural Areas at Under Graduate Level. *The English Classroom*, 4, (1, 46-50).

Gairns, Ruth and Redman, Stuart. (1986). *Working with Words: A guide to teaching and learning vocabulary*. New York: CUP.

Gupta, Sagarmal. (1994). *The Teaching of Vocabulary*. Jaipur: Rupa Books Pvt. Ltd, Iwata , Seizi(2004) Over-prefixation: a lexical constructional approach . English Language and Linguistics 8,2: 239–292.

Laufer, B. (1989). A factor of difficulty in vocabulary learning: deceptive transparency. *AILA Review*, 6, (10-20).

Liu, N. and I. S. P. Nation. (1985). Factors affecting guessing vocabulary in context. *RELC Journal*, 16, (1, 33-42).

Marzieh Rafiee Mansoor Tavakoli and Zahra Amirian et al, (2011) "Structural Analysis of Lexical Bundles Across Two Types of English News Papers" Modern Journal of Applied Linguistics 3,2: 218-236

Meara, P. (1980). Vocabulary acquisition: A neglected aspect of language learning. *Language Teaching and Linguistics Abstracts*, 13, (221-246).

Nation I. S. P. (1990). *Teaching and Learning Vocabulary*. New York: Newbury House.

Nation I. S. P. (2001). *Learning Vocabulary in another Language*. Cambridge: CUP.

Nation I. S. P. (2006). Teaching and Learning Vocabulary. In Eli, Hinkel (ed.), *The Handbook of Research in Second Language Teaching and Learning*. (pp. 581-595). London: Lawrence Erlbaum.

Ninio, Anat(1979) Ostensive definition in Vocabulary Teaching. Journal of Child Language 7: 565-573.

Read, J. (1998). 'Measuring the Vocabulary Knowledge of Second Language Learners.' *RELC Journal*, 19, (12-25).

Schmitt, Norbert. (2000). *Vocabulary in Language Teaching*. Cambridge: CUP.

Shen, Yingying (2009) Borrowed Words in English and Chinese Vocabulary. English Language Teaching 2, 1: 62-67.

Sokmen, A. (1997). Current trends in teaching second language vocabulary. In N. Schmitt and M. McCarthy (eds.), *Vocabulary: Description, acquisition, and pedagogy,* (pp. 237-257) Cambridge: CUP.

Stahl, Steven A. (2005). Four Problems with Teaching Word Meanings. In Hiebert Elfrieda and Kamil L. Michael (eds.), *Teaching and Learning Vocabulary*. (pp. 95-114). London: Lawrence and Erlbaum.

Suganthakumari, J. (2004). Teaching vocabulary with Techniques. *The Journal of English Language Teaching,* 40, (3, 20-27).

Tekmen, E. Anne Ferrell and Daloglu, Aysegul. (2006). An Investigation of Incidental Vocabulary Acquisition in Relation to Learner Proficiency Level and Word Frequency. *Foreign Language Annals*, 39, (2, 220-243).

Vyavahare, G. V. (1993). Learning New Words: A New Approach. *ELT News*, 3, (41-45).

Walters, JoDee (2004) Teaching the Use of Context to Infer Meaning: A Longitudinal Survey of L1 and L2 Vocabulary Research. English Language Teaching 37: 243–252.

Wallace, Michael. (1982). *Teaching Vocabulary*. London: Heinemann Educational Books.

West, Michael. (l953). *A General Service List of English Words*. London: Longman.

Xiang, Ma Zhan. (2000) The Necessity of Intensifying English Vocabulary Teaching in the Remote Minority Area College English Teaching. Asian EFL Journal