Techniques to improve the vocabulary of the students at the college level

Pushpa Nagini Sripada¹ and Mani Ramana Cherukuri²

¹Department of English, Sathyabama University, Chennai, India
²Department of Psychology, Adikavi Nannayya University, Rajahmundry, Andhra Pradesh, India

Abstract. The paper suggests effective techniques to improve the vocabulary of the students in English as a Second Language context based on an experimental study. The study was conducted in India (South Asia), in an Engineering college for freshmen in the age group of eighteen to nineteen years. The paper makes a comparison of two vocabulary teaching strategies and the results show that explicit vocabulary teaching is more effective than implicit vocabulary teaching. The experimental group also showed greater involvement as they enjoyed doing reading and vocabulary exercises than the control group that did only reading activities. The study makes an important contribution to the existing research as it recommends focused vocabulary teaching by suggesting various techniques for teaching vocabulary.

Keywords: esp; est; vocabulary teaching; lexis; lexeme; mental lexicon.

1 Importance of English communication skills in India

Today English is India's obsession number one. For many here, education is synonymous with English - "...and do you call him educated? He can't write even two lines of English correctly" is a refrain in India about people who may have a degree but lack learning." In a survey conducted by Ford Foundation in India in 1983, nearly 99% respondents said (Chaudhary, on line) that English was their best bet for a good career. If their children had to learn only one language, all respondents said, they would like them to learn English. The ‘obsession’ with English in India is not without reasons. For many Indians, English is not just 'window on the world', today it is India's virtual highway to the IT and other markets. IT workers from India have the advantage of not only of skill and wages, but also of language. English cannot be termed a foreign language in the Indian context; Socio-economic factors played a major role in this change that is dynamic even today. The liberalization of the Indian economy led to the entry of many international brands in various areas.

* Corresponding author: pushpa.english@sathyabamauniversity.ac.in

© The Authors, published by EDP Sciences. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (http://creativecommons.org/licenses/by/4.0/).
2 Growth of commercial institutions for English coaching in English

The most significant impact of this change is a mushroom growth of institutes and academies offering a whole range of proficiency courses in English from clearing the IELTS to speaking fluently. Non-formal institutions too have tried to meet this challenge-British Council and Cambridge English are in expansion process by offering English language programs, RELO- US Embassy is offering Access Programme besides many soft skills and communicative skills programs by Ebeck, and many private players, free lancers in the market. The success of their ventures shows the need and desire of many to be proficient in English. The major findings of India Skills Report [7], found that “Employability skills that companies are looking for are: good behavioural skills, domain/functional expertise … learning agility, inter-personal skills and communication skills.” So communication skills continue to be important especially for a student aspiring to enter global job market after completion of education.

3 Needs of the student community

In a questionnaire given to first year students of Engineering, 80% of the students expressed the need to improve their vocabulary. Findings from the Diagnostic Test Conducted for Students of the University seeking Certification ‘Vintage’ offered by Cambridge University. Sripada Pushpa Nagini [15] also suggest the need to improve the communicative skills of the students in the settings where the study took place. In a diagnostic test of essay writing that was conducted to the participants, it was found that many essays lack content and ideas that are expected of the tertiary level students occurred in 72% of the essays. It was also noticed that many of the essays lack coherence, with almost no usage of high proficiency words and collocations [15].

4 Research on communicative skills of adult learners

The pragmatic reasons as well as the research findings suggest that the adult learners have enough knowledge of grammatical structures but need to improve their vocabulary. Sarangi [12] cites Haastrup and Philipson who established in their study that the origins of any communication breakdown lie mainly in the learner’s lexical limitation in reception as well as in production. The study shows no evidence of either pronunciation or grammar causing communication disruptions. Johansson [12] holds that the lexical errors, seen from native speaker’s point of view, are taken to be more disruptive and more serious than grammatical errors, a finding that has been supported by Tomiyana’s study [12].

5 Setting

Sathyabama University is a self-financing educational institute of great reputation, where students from all over India study there for its best infrastructure and teaching programs. English is introduced in the first semester of engineering in an eight-semester course.

6 Sample description

The target population of the study are students of first year engineering in the age group of seventeen to eighteen years. They have completed plus two or intermediate, an eligibility examination for admission into engineering course in Tamil Nadu, India.
7 Need for the study

The research in the field of L2 learning, in the recent past has stressed on the improvement of pronunciation, phrase patterns and sentence patterns as early as possible, in order to minimize the influence of L1 on L2 learning. Some researchers suggested limiting vocabulary teaching in the very early stages of L2 learning, in order to avoid the burden of memorizing and also to concentrate on basic grammatical patterns and pronunciation. High frequency words or words that could be put to maximum utilization were to be taught to the learners till the completion of school. Usually input like reading and listening leads to vocabulary improvement. But the students in Intermediate stage in India are discouraged from reading for pleasure, as they need to prepare for competitive examinations. An article on Mental Lexicon [13] suggests repetition of the words in the classroom and association of words into groups would facilitate better retention as words of the same category are retained better. Besides developing the habit of reading, teachers can develop tasks for second language vocabulary teaching based on the theories suggested in the paper by Sripada Pushpa Nagini [13]. Even research by Sarangi [12] proved that adult learners face lexical gaps in speaking. The companies that visit university look for students with better communicative skills (discussed in previous sections).

8 Description of the tools

Since the investigator is active in conducting various experiments in teaching vocabulary and has publications in the area, the choice for tools for the study were shortlisted to only pre-test and post-test for quantitative analysis and qualitative analysis for validating findings.

9 Rationale for the strategy

Psychological studies have shown that human memory is flexible. Some studies on how words are learned, stored in and retrieved from the internal lexicon presented by Atchison [1] are discussed here. There is general agreement that in a natural (L1) word acquisition process several stages may be recognized. They cannot always be clearly distinguished because learning a word is an incremental process that gradually develops with repeated exposure and because there is constant interaction between the various stages. The different stages of learning have been briefly described here will be briefly described here as if they were separate stages independent of one another.

**Noticing:** Notice the various properties of a new word: morphological and phonological, syntactic, semantic, stylistic, collocation and so forth.

**Storing:** Store in the internal lexicon, in networks of relationships that correspond to the properties given in 1.

**Consolidating:** Consolidation of the storage described in (2) by means of further exposure to the word in a variety of contexts which illustrate its various properties. This results in a firmer embedding in the memory needed for long term retention.

Adequate implementation of the stages described above will result in a solid embedding of the word in the mental lexicon, which is necessary for efficient receptive and productive use. If one of the stages is neglected, the word will not properly fix itself in the internal lexicon and will be stored only superficially without the many associations and links with other words needed for efficient lexical retrieval.
10 Rationale for developing vocabulary exercises

A compendium of exercises types was collected through an extensive examination of L2 vocabulary teaching textbooks and also as per the suggestion of Paribhakt and Wesche, [10]. They grouped the vocabulary exercises into five distinct categories, representing a hypothesized hierarchy of mental processing activity as follows:

Selective Attention: To ensure that students “notice” the target word, which is the first stage in acquisition of the word, bold facing, italicizing, circling, underlining, colouring or other visual signalling of the target word in the reading text is suggested.

Recognition: In recognition exercise all necessary elements are provided and the learners are asked only to recognize the target words and their meanings. Examples include: Matching the target word with a definition of synonym (usually more definitions or synonyms than words are provided), recognizing the meaning of the target word from a multiple choice of meaning etc.

Manipulation: Manipulation exercises involve rearranging and organizing given elements to make words or phrases, drawing on student’s knowledge of morphology and grammatical categories: examples include giving derivations of words (i.e., changing the grammatical category of target word, such as from noun to adjective etc.

Interpretation: Interpretation involves analysis of meaning of the words with respect to other words in given contexts. (i.e. collocations, synonyms and antonyms). Examples include- Finding odd word in a series of words, Understanding the meaning and grammatical functions of the target word in the text etc.

Production: These exercises involve producing target words in appropriate contexts example: Open cloze exercise, labelling pictures, answering a question requiring the target word, seeing or hearing L1 equivalent or an L2 synonym and providing the target word, finding the mistake in using the word and correcting it.

Neelakantam, M. [9] in her ESP course Design makes note of the following aspects which are very essential in communicative approach to language teaching:

Organization: Linguistic approaches usually view language as made up of discrete units such as words, sentences, patterns or functions. The discrete units fit well into carefully planned steps. Learners are expected to master the particular unit of work before they continue to the next one because even the process is viewed as consisting of distinct points of mastery along the continuum.

Teachers’ Role: Dubin et.al [9] observe that the teacher has the role of a resource person who provides students with materials beyond the text book and as an evaluator, matching students’ needs with those set in the program or curriculum in order to bring the two closer.

The Students' Role: Since the researcher followed CLT approach in designing the strategies, the learners were encouraged to share responsibility in various elements: the learning process, the content and the outcomes. Since communicative aspects of interaction in the target language are stressed, students must learn to function effectively in pairs and small groups, sometimes teaching each other, at other times discovering answers to problems together. In the process of improving the strategy, the learner’s opinions are very important.

11 Materials

The materials are from a variety of sources (magazines, newspaper, articles etc) and cover a wide range of topics of interest to university students (environment, profession, science and technology).
12 Treatment

Reading plus Treatment (RP): The study follows the procedures suggested by Paribhakth and Wesche, [10]. The experimental group (called RP treatment students) read the selected texts and answered the accompanying comprehension questions in the class and at home. In the next session, they did vocabulary exercises for a given text. The students corrected these exercises by exchanging their work sheets. This correction helped them to work with the words once more.

Reading only Treatment (RO): The control group were called RO group. In the RO treatment students also read the main texts and answered accompanying comprehension questions in the class, followed by correction. Instead of vocabulary exercises, however, a short passage containing target words was dictated and the students asked to correct the errors in it. In this way the students were exposed to target words again through reading and again through subsequent completion of comprehension exercises.

13 Quantitative Analysis

An analysis of quantitative data obtained from the pre-test and the post-test is presented here.

Administering the Pre Test and Post Test: The pre-test and post-test were administered to both groups- Experimental and Control Groups. The Pre-test was conducted to both groups of the initial study and the main study. The post test was also administered to both groups in the two studies.

Analysis of the Scores: The pretest had five types of vocabulary tasks. The Post Test had five types of vocabulary tasks. In both test each task carry ten marks. The total marks for each test was 50. From the data analysis it was found that there were gains for both groups but the gains for the experimental group were more.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest (Mean)</th>
<th>Posttest (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP</td>
<td>52.39</td>
<td>61.73</td>
</tr>
<tr>
<td>STD</td>
<td>22.21</td>
<td>9.21</td>
</tr>
<tr>
<td>CV</td>
<td>42.39</td>
<td>14.93</td>
</tr>
<tr>
<td>Ztest</td>
<td>3.03</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest (Mean)</th>
<th>Posttest (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO</td>
<td>46.71</td>
<td>56.60</td>
</tr>
<tr>
<td>STD</td>
<td>12.73</td>
<td>7.68</td>
</tr>
<tr>
<td>CV</td>
<td>27.26</td>
<td>13.57</td>
</tr>
<tr>
<td>Ztest</td>
<td>5.19</td>
<td></td>
</tr>
</tbody>
</table>

14 Interpretation

The main hypothesis is given the same amount of time devoted to the two treatments, gains for the reading plus vocabulary instruction strategy will be significant compared to the Reading only strategy. From the above quantitative analysis it is clear that there is consistent improvement in the performance level of Experimental group in both initial and main studies. So it can be interpreted that reading plus focused vocabulary teaching is more effective than the reading only strategy.
About 15 students were contacted to obtain personal, oral feedback almost all the students found the materials, topics and the vocabulary exercises interesting.
- about 90% felt matching the word with meaning and multiple choice interesting.
- most of the students liked the tasks given in the class.
- students admitted that immediately repeating the words after reading, made them to note new words in the note books in other subjects also.
- the students felt that they developed an interest in reading and vocabulary self-help books.
- many students felt that the activities helped in speaking English in the class and 60% admitted that they were motivated to improve their communicative skills by speaking outside the classroom.
- some students said that the activities helped them pronounce words several times by discussing with their friends and even helped in learning the spelling of some words, especially changing one form into the other.
- 40% of the students admitted to using the dictionary more after the classes.

The observers, who supported the investigator, started using the materials developed by the scholar in their classes also. In their opinion such activities like repeating the words, using dictionary, group work and pair work helped the students to even practice speaking in the classroom. They found such activities useful as it helped the weak students to learn more words in groups and even helped them to develop their strategies to learn new vocabulary. The interaction in the class was useful and all the students learned not only from the teacher but also from their classmates. Even the students helped the others in the class. The strategy acted as an ice breaker as it helped the students in shedding their inhibitions and created interaction among students from different areas. The study also confirms to the findings of the study conducted by Evangeline JCK and Ganesh K. [5] where it was found that the learners attention is more on scoring well in their technical subjects than on mastering skills in writing. Since her study finds that lexical blocks create writing difficulties, the study suggests repetition of words to improve the written skills of the students.

15 Hypothesis evaluation

Assumption: Given the same amount of time devoted to the two treatments, there will be significant gains in the Post test of the reading plus vocabulary instruction group (i.e. Experimental group) compared to the post test of reading only group (i.e. Control group)

The main hypothesis is: Given the same amount of time devoted to the two treatments, gains for the reading plus vocabulary instruction strategy will be significant compared to the Reading only strategy.

Null Hypothesis: There will not be significant gains in the Posttest of Reading plus vocabulary group (i.e. Experimental group) compared to the Pre- Test of Reading plus vocabulary group (i.e. Experimental Group). The data collected from the students after the study proved that the strategy used for the experimental group is significant. The study proved that direct teaching of vocabulary by repeating seven times leads to better retention as the students feedback proved that they learnt many words and improved their communicative skills. Since both quantitative and qualitative analysis proved that the strategy is effective and significant, the null hypothesis is rejected.
Findings and recommendations

1. Teaching of decontextualised vocabulary from other related areas was found unsuitable.
2. It was found that random cloze test was not included in the pre-test while it was included in the pre-test.
3. Varied topics and exercises were developed for each category which made the study less focused.
4. Self-report category was time consuming and not benefiting the students.
5. Control Group was not able to read extra materials in the class and the scholar found it difficult to check whether they read them at home.
6. Students were interested in cross checking their answers in the class.

Based on the research findings and also the classroom observations of the scholar, the strategy is highly recommended for improving the vocabulary of the learners.

Acknowledgements: The authors wish to acknowledge the cooperation of the participants in the study from Sathyabama University, and the respondents to the questionnaires.

References