

Academic Vocabulary: The Need of the Hour for Regional Medium Engineering Students

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Abstract

Vocabulary is the amount of words that characterize a given language. Without this Vocabulary, the learner would be unable to use and comprehend the target Language. Therefore, Vocabulary, as a bearer of meaning, is considered to be very important in the Language acquisition process. It is becoming increasingly apparent that teachers must enable students to learn and acquire a lexical base in order to achieve success in language learning in general. A young University ESL learner is expected to acquire the knowledge of 5000 families as listed in the Academic Word List (AWL). The AWL is a list of words which appear with high frequency in English-language academic texts. Unfortunately, due to many reasons the University Learners, who are the Engineering Students in this Study, from predominant Regional Medium backgrounds fail to acquire the Vocabulary necessary for communication and comprehension of the messages. This paper attempts to present the reasons for their inability to acquire the required vocabulary and will also study the indispensable fundamental concepts of Vocabulary like defining word, importance of vocabulary and its frequency types, and also to have a comprehensive understanding of Academic Word List and its importance to a university learner.

Introduction

The advent of computers, as we all know, brought unprecedented changes in all walks of life and society, in simple terms, starting from birth to death. It even had its impact in the field of education. It kicked off the birth and growth of many academic courses based on computers and the field of Engineering is not an excuse. Thus Engineering became the most fetching course due to the advent of computers. Courses like Computer Science Engineering, Electronics and Communication Engineering, Information Technology etc, became a boom and the Multi National Computer companies started hiring graduates of these courses with high pays and alluring perks. This attracted the attention of most of the students and especially the regional medium students because engineering graduation (B.Tech) provides them good and respectable jobs with handsome salaries immediately after their education. Due to this reason most of the rural as well as urban students are opting for Engineering at graduation especially in Andhra Pradesh (A.P) (pre-bifurcation)

Engineering colleges started growing like mushrooms throughout A.P. by private investors with the aim of improving the standards of engineering courses and to provide standard education to many students. The number of colleges shot up to more than 700 from the small amount of 32 in 10 years with mind boggling sum of more than 2 lakh seats per year. Most of the institutions are affiliated to JNTU's and Osmania University. The admission into Engineering can be given along two modes. First is the merit mode, where a common test is conducted called EAMCET, and admissions are given on the basis of the ranks on merit. Almost 75-80% of students in this course get their admissions through this procedure. The second mode is through management quota, where management offers seats on paying huge fees, some times more than 10 lakhs in some cases. EAMCET is completely objective in manner and tests only the knowledge of the core subjects, i.e. Maths, Physics and Chemistry. There is least scope for the test of English Language except the fact that the questions are given in English. Medium of instruction of the learner, from the childhood, does not form a criterion for admission

According to the curriculum of JNTU's Engineering courses, only one language will be taught to the learner's during their 4 years engineering course i.e. English. English is taught only in the first and third years of the course. The syllabus of the first year English course aims at the all round development of language components of the learner in its preface of the

syllabus document. The objectives as specified in the document of syllabus published by JNTU are:

- To improve language proficiency of students in English with emphasis on LSRW skills
- To equip the students to study academic subjects with greater facility through the theoretical and practical components of English syllabus.
- To develop study skills and communicative skills in formal and informal situations.

Unfortunately, these objectives are, as educationists claim, never fulfilled due to poor infrastructural and hardly any pedagogical support to the students. It is worth to make a note of the comments made by our Vice-president Hamid Ansari in a conference in 2008, said

.....questions remain about the ability of the present framework of engineering education to respond to the requirements in adequate measure. The quality of teaching and employability of graduates is one aspect of it; the dearth of qualified and motivated faculty is another...

The first year students are our foremost concern as they just stepped into the course and will be dealing with the technical subjects of their respective courses. Among these students they are students from regional medium backgrounds along with the students from English medium backgrounds. The English medium students who are good at Language are competent enough to communicate and comprehend messages in English.

The regional medium students who have excellent knowledge of their core subjects lack the capability to communicate due to dearth of language skills. One must understand that though these students studied their intermediate in an English medium college, the schooling or early schooling, of half of the Engineering students, happened in their regional mediums. These students find it extremely difficult to understand their academic texts, can't communicate with their peers and teachers and slowly start building a cocoon of fear, insecurity and finally end up in low grades wasting their four precious years.

The pilot study which we conducted at the beginning of our study on the 1st yr

Engineering learner's pointed to the issue of lack of Vocabulary as the Key reason for their inability to communicate with their peers and teachers and also to comprehend the academic texts they study during their course. That's the reality as Wilkins said "Without Grammar very less will be conveyed but without Vocabulary nothing can be conveyed" (Thornbury 5).

This is true whether it's oral or written communication. This helped us to frame our study on how to develop the Vocabulary of these learners who are from regional medium backgrounds. In order to understand and study about Vocabulary development, we should first understand the basic concept of Vocabulary, i.e. the word.

A Word

‘A Word is a microcosm of human consciousness.’ (Thornbury 1)

All languages have words. Language emerges first as words, both historically, and in terms of the way each of us learned our first and any subsequent languages. The coining of new words never stops, nor does the acquisition of words. Even in our first language we are continually learning new words, and learning new meanings from old words. There are many words which have different meanings for the same words and sometimes many collocations i.e. associations. To understand the above statement first let us look an example- *Old, ancient, elderly, aged, antique, matures*. All these words are synonymous words to the key word ‘old’. But these words are used during different contexts as in ‘an antique wall clock’ but not ‘elderly wall clock’, ‘an aged person’ but not ‘an antique person’.

Thus there is not necessarily a one to one correspondence between a meaning and a single word.

Therefore knowing a word, in brief, would include

To know its Spoken form means the phonetic script. Ex- *kuhn-trahyv* for contrive

Written form means the spelling. Ex- the spelling of word ‘*rän d –v*’ is ‘rendezvous’
grammatical behaviour means the grammatical permutations. Ex- walk, walking, walked, walks
Collocations, means how words couple up to form new compound words meaningfully. Ex- a surge of anger

Connotations, means the associations made of the word. Ex- screwy has anegative connotation though it means lean person

Register, means to know in which field is the word related. Ex- prosecution is a word related to the field of law

Synonyms, means the other related words. Ex- joy, happy, enjoy, pleasure, delight etc.

Antonyms, means the opposite words. Ex- sorrow, grief, unhappy etc.

Importance of Vocabulary

“Without Grammar very little can be conveyed, without Vocabulary nothing can be conveyed”. This is how linguist David Wilkins summed up the importance of Vocabulary (Thorn burry 5). His view is echoed in this advice to students from a recent course book *Innovations*,

If you spend most of your time studying grammar, your English will not improve very much. You will see most improvement if you learn more words and expressions. You can say very little with grammar, but you can say almost anything with words.

Vocabulary is the name for words one must know, in order to listen, speak, read, and write effectively. According to Hatch and Brown: “Vocabulary refers to a list or set of words that individual speakers of a language might use”. (Hatch & Brown 1).

Accordingly, Vocabulary is the most amounts of words that characterize a given language. Without this Vocabulary, the learner would be unable to use and comprehend the target language. Therefore, Vocabulary, as a bearer of meaning, is considered to be very important in the language acquisition process. “Acquisition will not take place without comprehension of Vocabulary”. (Krashen & Tenell 155). In the same context, Lewis asserts that 'Language is not Words and grammar; it is essentially lexical (196). It is becoming increasingly apparent that Teachers must enable students to learn and acquire a lexical base in order to achieve success in language learning in general and reading in particular.

Size of 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 5), from a half million to over 2 million (Crystal 32), about 1 million (Nurnberg & Rosenblum 11) and 200,000 words in common use, although adding technical and scientific terms would stretch the total into the millions (Bryson 90). The discrepancy is due to largely 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. Golden, Nation and Read (1990) counted the number of families in *Webster's Third New International Dictionary* (1963), which is one of the largest non-historical 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, Gouldenet al. found that the dictionary contained about 54,000 words families.

Words in Use by the Native Speakers

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 that have estimated that English native speaking university graduates will have a Vocabulary size of about 20,000 word families as mentioned by Goulden et al and ; D'Anna, Zechmeister, & Hall. Nation and Waring reviewed Vocabulary size studies and concluded 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 native speakers will add roughly 1,000 word families a year to their Vocabulary size. This means that a L1 five year old beginning school will have a Vocabulary of around 4,000 to 5,000 word families (11).

Words in Use by the L2 Speaker

Researches proved that there is relatively slow progress in the Vocabulary gains in the ESL learner. The main reason is the lack of exposure to the language in and outside the classroom. The average L2 learner will experience nothing like neither the quantity nor the quality of exposure that the L1 infant receives. It has been calculated that a classroom learner would need more than eighteen years of classroom exposure to supply the same amount of Vocabulary input that occurs in just one year in natural setting. Moreover, the inputs that infants receive are tailored to their immediate needs. By comparison, the average L2 learner's input is to say the least is impoverished. Given these constraints, how many words do the L2 learner needs to know?

The answer to this question, to a large extent depends on the needs. But the standard argument by most of the researchers recommend a basic Vocabulary of at least 3000 word families, while for specialised needs a working Vocabulary of over 5000 word families is probably desirable for a comprehensible communication. Learner's who aim for higher academic studies, should have a declarative knowledge of 570 word families of Academic Word List (AWL), which cover a variety of disciplines i.e. arts, commerce, law, science etc.

These words account for one in every ten words in academic texts. As we mentioned earlier, our study will deal with the Engineering students general language needs, therefore Academic Vocabulary must be the required category of words necessary for an Engineering learner to master. Before we further proceed to discuss in detail about Academic Word List, we need to first acquaint ourselves with different types of word frequencies.

Different Frequency Words

a. High Frequency Words

The high frequency words are the words of the **General Service List (GSL)** due to its high frequency of occurrence across the language. It is a list of roughly 2000 words published by Michael West in 1953. The words were selected to represent the most frequent words of English and were taken from corpus of written English. The list is important because a person who knows all the words on the list and their related families would understand approximately 90-95 percent of colloquial speech and 80-85 percent of common written texts. The list consists only of headwords, which means that the word "be" is high on the list, but assumes that the person is fluent in all forms of the word, e.g. am, is, are, was, were, being, and been.

b. Academic word list

The Academic Word List (AWL) was developed by Averill Cox head. The list contains 570 semantic fields which were selected because they appear with great frequency in a broad range of academic texts. The list does not include words that are in the most frequent 2000 words of English (the general service list), thus many of the words are specific to academic contexts. However, a significant percentage of the Vocabulary contained within the AWL is of general use; it is simply not of high enough frequency to be contained within the General Service List. Words such as *area*, *approach*, *create*, *similar*, and *occur*, for example, are in sub list one, yet are words which one could expect to encounter in everyday life, in newspapers, on television, etc.

The AWL was primarily made so that it could be used by Teachers (especially Teachers of English as a Second Language) as part of a programme preparing learners for tertiary level study or used by students working alone to learn the words most needed to study at colleges and universities. The 570 words are divided into 10 sub lists. The sub lists are ordered such that the words in the first sub list are the most frequent words and those in the last sub list are the least frequent

c. Technical Vocabulary

Technical Vocabulary in other terms is also referred to as English for specific purposes.

The list contains words that are very closely related to a particular topic and subject area. Generally most books consider ESP (English for specific purpose) as a broad term the term under which EAP (English for academic purpose) is a sub division. But we would consider EAP as a broad term which gets narrowed to specific technical purposes of the learner.

Ex- podocarp, mitochondrion, hypothalamus, thyroxin etc.

d. Low frequency words-

The forth group is the low frequency words. This group includes words that make up over 5% of the words in a text. They include all other words that are not high frequency words, not academic words, and not technical words of a subject. Therefore these words are rarely met in our daily use of the language. Ex- pioneering, perpetuity, exoneration, abomination etc.

Having briefly reviewed the types of Vocabulary, our study will primarily focus on Academic word list (AWL).

Academic Vocabulary

Definition of Academic Vocabulary

When learners have mastered the 2000-3000 words of general word List in English, it is wise to direct Vocabulary learning to more specialised areas. Generally, the next stage of Vocabulary should be in such a way which would help for their academic growth i.e. which helps in comprehending the academic texts through all modalities. This task can be successfully done if the learner acquires the Academic Vocabulary. Therefore let's look into the details of Academic Word List.

Academic Vocabulary is variously known as 'Generally useful scientific vocabulary' by Barber, (1962) 'Sub- Technical Vocabulary' by Cowan (1974); Yang (1986); Anderson (1980), 'Semi-Technical Vocabulary' by Farrel (1990), 'Specialised Non-Technical Lexis' by Cohen, Glasman, Rosenbaum-Cohen, Ferrara and Fine (1988), 'Frame Words' by Higgins (1966), and 'Academic Vocabulary' by Martin (1976) and Coxhead, (2000).

This list was compiled by Coxhead in 1998. This list of 570 word families is based on 3,500,000 token corpus of academic English which is divided into four groupings— Arts, Science, Law, and Commerce- with each grouping consisting of seven sub groupings such as

psychology, mathematics, history, etc. Both range and frequency are used to select words for the list, with all word families in the list occurring in all four groupings and occurring at least 100 times in total corpus.

The frequency of each of the words in the list was compared with their frequency in a 3,500,000 corpus of novels. This was done to see which words in the list were truly academic words and which were general service words not in West's GSL. AWL is divided into 10 sub lists of 60 words each based on range and frequency criteria. There have been several studies that have investigated the Vocabulary needed for academic study. Two of them; Champion and Elley 1971; Praninskas 1972 assumed that learners already knew a general service vocabulary and looked at academic texts to see words which are not in general service vocabulary occur frequently across a range of academic disciplines. Two other studies by Lynn 1973; Ghadessy 1979 looked at the words that learners of English wrote translations above in their academic texts. There are considerable overlaps between different lists and they were combined into one list, the *Universal Word List (UWL)*, by Xue and Nation. This list has been replaced by Academic Word List (AWL).

Importance of Academic Vocabulary

There are several reasons why academic Vocabulary is considered to be important and a useful learning goal for learners of English for academic purposes. The principle importance of Academic Vocabulary can be seen in the coverage it provides for various kinds of texts.

Levels----- Texts	Conversation	Fiction	Newspaper	Academic
1 st 1000	73.5%	84.3%	82.3%	75.6%
2 nd 1000	4.65%	6%	5.1%	4.7%
Academic	11.5%	1.9%	1.7%	3.9%
Other	10.3%	7.8%	10.9%	15.7%

Table 1.1 Text types and text coverage by most frequent words and academic words (Nation, I.S.P.)

Adding Academic Vocabulary to the high frequency words changes the coverage of academic texts from 78.1% to 89.6%. Expressed in another way, with the Vocabulary of 2,000 words

plus the Academic word list, approximately only one word in every ten will be unknown. This is a very significant change. Instead of learning vocabulary of Academic Word List, if the learner had moved on to the third 1,000 most frequent words, there would only have been 4% extra coverage instead of an additional 10% coverage. Academic Vocabulary is a kind of specialised vocabulary that an English Teacher can usefully help learners. This is in contrast to technical Vocabulary where the Teacher can often do little because of

- lack of background knowledge in the subject;
- the need to learn technical Vocabulary while learning the content matter of the technical field and;
- the mixtures of different disciplines within the same group of English students.

From this perspective, an Academic Word List represents an extension of the general service Vocabulary for learners with Academic purposes. IT IS THE LIST OF WORDS THAT DESERVE A LOT OF ATTENTION IN A VARIETY OF WAYS FROM BOTH LEARNERS AND TEACHER PERSPECTIVES, NO MATTER WHATEVER IS THEIR SPECIALIST AREA OF ACADEMIC STUDY.

Thus understanding the importance of Academic Vocabulary for the ESL learner's and its wide implications in the process of vocabulary acquisition enhances their communicational abilities. Procedural and declarative knowledge of the words of Academic Word List enables the regional medium ESL learners of professional courses with special reference to Engineering students, to comprehend and communicate ideas better in the Academic spheres.

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