7.1 INTRODUCTION

The success of an educational program depends on the quality of the course design and the fulfilment of the specified objectives of the course. It is an imperative need to carry out a survey, to look at the needs of the target students and arrive at specific observations; thus, the needs--analysis becomes the initial action of any program. An extensive survey on needs has to be carried out and the needs should be categorically stated before a course is designed.

A course design for any educational program has the following components:

- Objectives of the course
- Syllabus
- Course materials
- Methodology of Teaching
- Evaluation Pattern
- Supplementary Materials

Taking the above components into consideration a study has been carried out in the four selected Universities – Acharya Nagarjuna University, Jawaharlal Nehru Technological University (Kakinada), Koneru Lakshmaiah University and Vignan University respectively, by conducting a survey. In order to have an in-depth study of these components, a questionnaire was prepared to make an analysis of the syllabi and
the prescribed textbooks, which are the basis for the components mentioned. It is also examined through the study whether ESP (English for Specific Purposes) has been offered and the objectives of the courses are achieved or not.

7.2 OBJECTIVES OF THE COURSE

Once the needs of the target-learners are established, the objectives which fulfil those needs should be specified. They are stated in two categories:

i. Macro Objectives; and,

ii. Micro Objectives.

Macro-objectives define the overall major objectives given and Micro-objectives deal with the individual items to fulfil the Macro objectives. For example, in the language teaching context, if teaching Reading is a Macro objective, teaching different types of Reading such as reading for information or reading for pleasure become Micro objectives. A good course design categorically specifies both these types of objectives.

The responses of the students have been categorically noted.

Responses of the Acharya Nagarjuna University Engineering College Students on the Objectives of the Course:

The objectives of the course have been very clearly stated in the syllabus: to make the learners “linguistically aware and communicatively competent.” The detailed survey conducted, involving the students, reveals that the macro objectives of vocabulary and basic skills in writing are satisfactory to some extent. When it comes to writing, the micro-objectives such as Note-making and Note-taking are not practicable.
Responses of the Jawaharlal Nehru Technological University (Kakinada) Engineering College Students to the Objectives of the Course

The main objective of Jawaharlal Nehru Technological University (Kakinada) is to make learners communicative, to meet the needs of the industry. The major objective mentioned in the Jawaharlal Nehru Technological University (Kakinada) syllabus is to make the learners “communicatively competent.” The objectives mentioned in the syllabus are:

a. To improve the language proficiency of the students in English with emphasis on LSRW skills.

b. To equip the students to study academic subjects with greater facility through the theoretical and practical components of the English syllabus.

c. To develop the study skills and communication skills in formal and informal situations.

Most of the students felt that the Communication Skills Lab has helped them in improving their Listening and Speaking Skills while not much attention has been paid to their Reading and Writing Skills.

Responses of the Koneru Lakshmaiah University Engineering College Students to the Objectives of the Course:

The main objective of I/IV B.Tech. I Semester syllabus of Koneru Lakshmaiah University is to teach communicative grammar. The chief objectives mentioned in the syllabus is as follows:

- To make the students “accomplished technical communicators”;
- To make them experts in professional writing;
To make them recognise the role of technical writing in their careers in business, technical and scientific field.

The objectives are laudable; but, what intrigues one is: How would the writings of Stephen Leacock, R. K. Narayan, Anton Chekhov, D.H. Lawrence and Siegfried Sassoon strengthen the learners’ competence in technical communication or technical professional writing and make them experts in communication, in the drastically changed global scenario.

The main objective of Technical Communication Skills-II Semester syllabus of Koneru Lakshmaiah University aims at making the students communicative at the workplace. The concept appears to be theoretically sound. But it mainly concentrates on improving only Writing Skills of the students.

**Responses of the Vignan University Engineering College Students to the Objectives of the Course:**

The main objective of the English course of this University is to enlighten the students in Managerial Skills and Business Skills. The course is intended to help the students pursue Management Courses such as Master of Business Administration (MBA), for better prospects of employability. Keeping this in view, introducing Management Studies in the first year I Semester in the Engineering Course confuses the students to some extent. English as a subject is expected to give proficiency in the language skills; but the units are filled with topics on management.

**7.3 SYLLABUS**

After establishing the objectives of the course, a detailed syllabus has to be given.
This contains a list of teaching items to give a direction to the material producers. This list should correspond with the objectives stated. For example, if “Teaching Pronunciation” is given in the objectives, different features of English pronunciation should be listed out in the syllabus. The syllabus also should be conveniently arranged under such units. The duration of time allotted for the course should be taken into consideration, while deciding the units under study. A strict time-frame also has to be given to make the teaching programme pedagogically successful.

Responses of the Acharya Nagarjuna University Engineering College Students to the Syllabus prescribed

The syllabus has been designed paying special attention to the contemporary industrial needs and current society demands for language skills. However, the students felt that the syllabus for the three different units – ‘General Communication Skills’, ‘Technical Communication Skills’, ‘Vocabulary’ and ‘Basic Language Skills’ has been spelt out very ambitiously, without any correlation between the syllabus designed and the textbooks (i.e., *Objective English for Competitive Examinations* (Third Edition) and *Developing Language Skills-I* (Foundation books) prescribed.

Responses of the Jawaharlal Nehru Technological University (Kakinada) Engineering College Students to the Syllabus prescribed

The major objective mentioned in Jawaharlal Nehru Technological University (Kakinada) syllabus is to make the students “Communicatively Competent”. The two prescribed textbooks, *Learning English: A Communicative Approach* and *Wings of Fire* fulfil some of the micro objectives of Reading, according to which a text (i.e., *Wings of Fire*) should serve not only the purpose of “Reading for information” but also “Reading
for Pleasure”. Some of the topics in Learning English: A Communicative Approach related to the technical field such as Astronomy, Computer Ethics etc., are uninteresting to both the teachers as well as learners. Using this textbook only for the written examination also fails the very purpose of integrating the skills of Reading and Writing.

Along with the prescribed textbooks Communication Skills Lab has been introduced to meet the objectives mentioned in the syllabus. Listening, in this case is a one-way communication; it depends on the software used by those particular colleges. Speaking Skills should be imparted on three levels: Sound Level, Word Level and Discourse Level. Under the heading – Speaking, the introduction of sounds has proved to be ‘good’ enough, but the next two levels, that of vocabulary and sentence construction do not find a place in the syllabus. The lab syllabus includes a large portion on phonetics, upto syllabic level leading to intonation and rhyme only.

Responses of the Koneru Lakshmaiah University Engineering College Students to the Syllabus Prescribed

The syllabus of Technical Communication Skills-I is heavy with many items and there is time constraint. If the time duration for teaching all the concepts/topics prescribed in the syllabus is sufficient, then the syllabus prescribed will fulfill its objects. But it has been observed that the teacher has felt a heavy time – constraint in dealing with so many topics. Hence, the learners are compelled to depend heavily on the prescribed textbooks and the practice for the language items gets neglected as a result. All the topics under Unit-III (Advanced Communicative Grammar and Phonetics) and a few topics in Unit-I are to be found only in the reference books, which are quite expensive. In general, the students cannot afford to buy them. Though the syllabus for Technical Communication
Skills-II leans heavily on Writing Skills, the objective stated is neither clear nor practical as there is only a vague mention of some “special skill sets,” without going into the details.

The *English Communication Lab* has the concepts related to task-oriented activities, such as ice-breaking, Escatalk, multi-tasking, to improve the Listening and Speaking Skills of the students in the lab.

**Responses of the Vignan University Engineering College Students to the Syllabus prescribed:**

The title of the course, *Essentials of Management and Basic Communication* offered in I/IV B.Tech. I Semester reflects the objectives of the syllabus. The syllabus therein is confusing to the students, making them wonder whether it is a Management Course or Basic English Course. The students, who are interested to join in MBA after completing their B.Tech. course are happy with the management concepts introduced in the English syllabus. The remaining students feel that these concepts are redundant.

The syllabus prescribed for the English Language Lab for the first year students is good enough and if it is handled by experienced and task-oriented teachers, with the help of the software available, it is sure to fulfil the objectives mentioned.

The syllabus prescribed for the Second Semester students is also comprehensive, enabling the students to develop Writing Skills, containing as it does a number of writing tasks, including Business Correspondence. However, the entire syllabus of the first year falls short of inculcating Reading Skills. If the reading material is not prescribed to the learners of a second language, the tendency would be to lean heavily on the teacher for help and the class rooms may become traditional, teacher-oriented centres.
7.4 COURSE MATERIALS

Suggestions for the producers of the course material should be highly categorical. The topics should be mentioned in the Course Design with suggestions on expansion of vocabulary and rules governing sentence structures. The length of each Unit/Lesson should also be given, with necessary instructions on the follow-up exercises.

Responses of the Acharya Nagarjuna University Engineering College Students to the Course Materials

The course material prescribed should give a proper sense of direction to the students. But Acharya Nagarjuna University textbooks fail in this respect and do not give any direction to the teacher to deal with topics such as Paragraph Writing, Essay Writing, Letter Writing, Report Writing and the topics related to ESP, such as Technical Words, Corporate Information etc. The extensive list of reference books does not provide any sense of direction, either to the teacher or the students in making the right choice of the reference book within the short period of stipulated time. For example, the prescribed textbook, Developing Language Skills-I does not have any connection with the syllabus prescribed.

Responses of the Jawaharlal Nehru Technological University (Kakinada) Engineering College Students to the Course Materials

The course material has been designed to develop linguistic and communicative competence of the technical students. The textbooks prescribed focus on the four basic skills – Listening, Speaking, Reading and Writing, which provide ample scope both for the teachers and learners. But there are certain grave areas where the course materials fail in giving proper direction. For example, the prescribed textbook fails in giving direction
to deal with the topics such as remedial grammar, Letter writing, Essay writing, Synonyms and Antonyms, one-word substitutes, prefixes & suffixes, idioms & phrases, words often confused and common errors in English. It is also found that the extensive topics prescribed and the time allotted does not match each other.

Responses of the Koneru Lakshmaiah University Engineering College Students to the Course Materials

Communication is probably the most crucial skill in today's fast-paced business-oriented world. Students learn to convey to diverse audiences and apply their knowledge in varied settings and become accomplished technical communicators. The course materials should enable them to equip themselves with necessary language skills. “Technical English Communication Skills–I”, the title of I Semester English Course covers many major topics like Phonetics, Lexis, Advanced Communicative Grammar, Persuasive Writing, Analysing Texts etc. The textbooks prescribed in this Semester are Communication Skills and Communication for Business - A Practical Approach. But these two books do not cover any of the major topics mentioned in the syllabus. It also found that the very title of the first prescribed textbook is mentioned wrongly. The exact title of the book is Technical Communication: English Skills for Engineers, by Meenakshi Raman and Sangeeta Sharma. And it misleads the students in procuring the prescribed textbook or making to a reference to the course materials.

The topics mentioned under the heading, “Technical English Communication Skills-II” prescribed in I B.Tech. II Semester are: Communicating in Teams, Intrapersonal and Interpersonal Skills, Business Correspondence and Business Report
Writing. Surprisingly some of the topics are not reflected in the textbook prescribed, *Business Communication: Process and Product* by Mary Ellen Guffey.

**Responses of the Vignan University Engineering College Students to the Course Materials**

The syllabus for the two Semesters of the I year B.Tech. course has been designed to give the students a sound grounding in English Grammar and use of lexical terms. To achieve the main objective in I Semester, the course title is given as Essentials of Management and Basic Communication. Though no prescribed textbooks are mentioned, a list of reference books is given along with the micro details. It is disheartening to note that within a short, stipulated time the teachers/students will have to approach the reference books for micro details. The course title as well as topics deal more with management concepts than Communication Skills. The teachers drafted to deal with these topics are drawn from different Departments. English teachers have fewer roles to play in the process of teaching, as many of the topics are related to management studies.

*Advanced Communication Skills* is the title of the I B.Tech. II Semester Course. A variety of classroom tasks and assignments are included in the course material which is divided into five units. However, no specific textbook has been prescribed. Almost similar to the I Semester English syllabus, the Second Semester English syllabus also contains a list of nine reference books. The students have to refer to all the nine reference books, for details, which is indeed a Herculean task, within a short stipulated time. It is very difficult for the students to procure books and to prepare themselves for evaluation.
7.5 METHODOLOGY OF TEACHING

The course-designers should mention what methodology of teaching could best be employed for successful delivery of the course materials. This is a very important aspect of the Course Design, because,

i. The course is carried on by a ‘good’ number of teachers from different disciplines and by teachers who hardly meet each other. A sense of direction or instructions given to the teacher would ensure a kind of uniformity in teaching methodology, however diverse the teachers may be in their background, efficiency or attitude.

ii. Guidance should also be given to material producers to make the course design specific in its methodology. For example, if the Course Design mentions that Communicative Language Teaching Methodology has to be followed, the material producers should design the material accordingly, making it conducive to an interactive classroom. Thus, mentioning the methodology of teaching in the Course Design would be very helpful in providing the right direction to the teacher handling the course.

Responses of the Acharya Nagarjuna University Engineering College Students to the Method of Teaching

Teaching methodology in delivering materials varies from teacher to teacher. The topics allotted in Unit-II under the Technical Communication Skills Course (English for Specific Purpose) are not known to most of the teachers, since they are not mentioned in the textbook and also because they are not familiar with the topics. Due to this unfamiliarity, and lack of any orientation, the teachers find it both boring and difficult to
deal these topics. The main reason for this confusion is that most of the English teachers come from the Humanities (English literature) background and need intensive orientation to deal with the topics and vocabulary related to English for Specific Purposes. The teachers need to have knowledge in ICT (Information Communication Technology) techniques and they need to be well versed with technical vocabulary as well as latest trends in the teaching Technical English.

**Responses of the Jawaharlal Nehru Technological University (Kakinada) Engineering College Students to the Method of Teaching**

The textbooks prescribed fail in giving a sense of proper direction to the students as well as teachers. There are certain vital areas where textbooks not at all useful. The teachers are not trained or given any textbook-orientation. As a result, the uniformity of learning LSWR skills is found missing.

The most distressing fact in the method of teaching, while dealing English Communication Skills Lab, is that in some of the colleges the lab instructors and the teachers are not adequately trained to teach those components. Though it has been included in the internal assessment and in the Semester-end examination, it is not being seriously dealt with by most of the teachers and students. The reasons could be: inefficiency, lack of interest, limited time available etc. Two suggestions could be given on this count: the software in the labs needs upgradation and has to be upto the mark and the English teachers and lab instructors should be trained to teach the phonological and language features by using electronic media.
Responses of the Koneru Lakshmaiah University Engineering College Students to the Method of Teaching

As the teachers and the students are not well aware of the title of the one of the textbooks prescribed. Most of the students feel that they do not have prescribed textbooks for English. It creates a confusing climate in the classroom teaching. Though the choice of many of the items prescribed in the I and II Semesters is ambitious, the tools to take these to the students are not clearly indicated. The teachers are not trained in the ELT specialised teaching for Engineering students. Most of the teachers possess a mere post-graduate degree, M.A. in English Language and Literature. They are not given any scope for acquiring any additional or extra qualification. Teaching English for technical students has become a highly involving task to the teachers. So uniformity is missing and both the teacher and the students are not happy with the teaching methodology.

The absence of specified syllabus for Computer Assisted Language Lab (CALL) becomes difficult, both for the efficient and not so efficient teacher to handle the Language Lab effectively. One more discouraging fact found is that both the Listening and Speaking activities are conducted simultaneously in one big room. It disturbs both the groups of students while they carry on their activities.

Responses of the Vignan University Engineering College Students to the Method of Teaching

The students feel that the textbooks are unwieldy. It is rare to find any Institution or Course without a prescribed textbook. The students in Vignan University are made to attend their English classes without a textbook. The course designers have provided on ambitious list of reference books with micro details. It is difficult to procure this long list
of reference books, both to the teachers and the students. The teachers are not trained on the lines of the course material prescribed. Many of the topics are to be dealt with by the teachers of who do not have the English language background. As a result, the students are lead away from the course objectives. The English teachers, who have to deliver the course, have no orientation in teaching the topics related to management. Unit I, Unit II and Unit III are totally devoted to management topics. Teachers follow neither a single book nor a single method to handle English classes. This leads to lack of interest in learning LSRW skills.

7.6 EVALUATION PATTERN

The Evaluation Pattern has to be decided by the course designers, assigning a judicious distribution of questions for subjective and objective assessment and the number of questions for each language skill, in a language teaching programme. The model question paper should also mention the maximum number of marks and the duration of the examination. The model question paper should give hints to the material producers about the emphasis to be given on different exercises given in the course material. The question paper should enable the student to have a comprehensive knowledge in answering the questions pertaining to all the language skills.

Responses of the Acharya Nagarjuna University Engineering College Students to the Evaluation Pattern

The aspect of ‘reading’ is included in the syllabus under Reading Comprehension. The other skills -- Listening and Speaking -- are not in the position of being practicable. Though activities on Speaking Skills are prescribed in the textbook, Developing Language Skills-I, they do not find a place in evaluation, either in the internal
or in the external examination. This lacuna makes the teachers neglect this very important component, the usefulness of which, in career-prospects, cannot be overlooked. The main emphasis is laid on Writing skill, where majority of the students do not use their creativity and simply reproduce from the materials provided in the textbook.

**Responses of the Jawaharlal Nehru Technological University (Kakinada) Engineering College Students to the Evaluation Pattern**

The course designers fail to maintain proper co-ordination between the prescribed syllabus and the evaluation pattern. Though the syllabus in Jawaharlal Nehru Technological University (Kakinada) - Unit VIII offers considerable scope to teach relevant grammar; the evaluation pattern denies it to be a compulsory item for testing; thus, the students mostly leave it for choice and do not pay attention to learn grammar. So, the learners are at a loss, as they neglect this part of grammar and fail to improve their Writing Skills.

**Responses of the Koneru Lakshmaiah University Engineering College Students to the Evaluation Pattern**

It is noted from the students that the evaluation patterns are not comprehensive. They do not give ample scope to the students to concentrate on learning English as a language. Likewise the marks allotted to the activities done by the learners in the Semester-end examination for Computer Assisted Language Lab (CALL), as per the syllabus, are hundred. But the students’ responses (oral) of that University represent that there is no external evaluation of the Semester-end examination, for the lab. It is suggested that serious steps should be initiated in the evaluation pattern, in order to make the learning process sincere.
Responses of the Vignan University Engineering College Students to the Evaluation Pattern

The Vignan University Engineering students do not have a prescribed textbook reflecting their syllabus. Students as well as teachers are made to locate the different units for study in the list of reference books suggested. When it comes to teaching as well as evaluating patterns, the teachers are unable to make them to concentrate on any one of the prescribed topics in the right manner. It is understood from the responses that the students as well as the teachers are very badly in need of prescribed textbooks that would fulfil the objectives of the courses.

7.7 SUPPLEMENTARY MATERIALS

It is imperative on the part of a course-designer to make a specific mention of the support materials. This is in fact a very important feature of a Course Design.

In general, no class, in any discipline, can be considered homogeneous because of different proficiencies, attitudes and aptitudes of the learners, even if they have a common education system before entering a particular course. An English class in India is an example of the manifestation of heterogeneity to its maximum level. The first year classroom in Engineering or Technology College provides the best example for such heterogeneity. There is diversity in every aspect of the students’ background: religious, cultural, linguistic, social, economic, educational and regional. Because of such diversity, the proficiency levels of the students in any English class are also bound to be different. Nevertheless, the entire first year Professional Degree course in an Engineering or Technology College hurls a big challenge to the English teacher. In this context, the supplementary materials come handy for a teacher to help the learners acquire more or
less equal proficiency in English. Hence, the Course Designer should be careful in selecting those materials which the teacher can use for the students who possess different proficiency levels in English: ‘below average’, ‘average’, ‘good’ and ‘excellent’. Unless the teacher works hard to bring all the students of a class on to a common platform from where they can catch up with the Technical English course offered in the first year, both the teacher and students would end up with dissatisfaction.

**Responses of the Acharya Nagarjuna University Engineering College Students to the Supplementary Materials**

Last but not the least, and most important feature of a Course Design is the direction given on the selection and the use of the Supplementary Materials to different levels of students. The list of supplementary materials or reference books is exhaustive. But it is a question whether the students find time to refer to all these supplementary materials. As there are no proper specific instructions on how and why they should use the supplementary material topics, it is like a wild goose chase.

**Responses of the Jawaharlal Nehru Technological University (Kakinada) Engineering College Students to the Supplementary Materials**

Handouts containing topics from the prescribed textbooks are given to the students. These supplementary materials are useful to the students at the time of Semester-end examinations. The list of reference books given is helpful to the students to face competitive exams such as GRE, TOEFL, GMAT, CAT and IELTS. The soft skills introduced by the University as a compulsory component through a tie up with K-Van Solutions, a soft skills software company, has helped the students to learn employability skills, along with language skills. As the Third year I Semester lab work,
done with this tie up, is bringing ‘good’ results, it can be made a compulsory part in the curriculum as well.

Responses of the Koneru Lakshmaiah University Engineering College Students to the Supplementary Materials

The prescribed textbooks along with the reference books give ample scope to the students to make them competent. But no attempt is made to make use of those materials to bring in uniformity in the language proficiency of the students.

Responses of the Vignan University Engineering College Students to the Supplementary Materials

The very title of the course Essentials of Management and Basic Communication focuses on acquiring managerial skills. The topics covered in some units are expected to impart the skills in English grammar, Reading and Writing. As there is no book prescribed specifically for English, it is difficult to the teacher to cull out from the reference books. The students depend and rely on the teacher for supplementary material, as it is not possible for the students to buy all the reference books. They depend heavily on the teacher for gaining advanced skills of communication as spelt out by the objectives. The list of reference books forms the core of the prescribed syllabus. If all the reference books mentioned are referred to by the students, it will equip them with ‘good’ communication skills. But lack of direction from the teachers to use those books leaves the students helpless. Teacher-training seems to help this situation.

7.8 RESEARCH FINDINGS

Considering the results of the analyses of the syllabi and the textbooks prescribed in the aforesaid four Universities, one can conclude that it is high time that the syllabi are
revised and restructured. Technical English syllabus at professional level for Indian students should be offered on three levels:

1. The basic skill orientation has to be done at the beginning of the course, to attain more or less homogeneity in the English proficiency levels of the students who hail from diverse backgrounds. This could be done in the first Semester of the I year B.Tech course;

2. A course in the Advanced English Language Skills should be imparted in the Second Semester of the I year B.Tech course;

3. Communication Skills Lab Course could be given in the I year B.Tech course, to help improving the oral skills of the students, in both the first and second Semesters;

4. Technical English Communication Course should be given in the II year B.Tech course. This could be done by using English material from their optional subjects; This would help the students to follow the technical texts easily. Oral and written communication should deal with the topics related to their optional subjects. The Lab work should be made optional so that those who need more time to improve and refine their oral skills may do so;

5. Extensive vocabulary to help the students both in their technical career and for appearing at the International examinations such as GRE, TOEFL and IELTS should be offered to the willing students, in their III year B.Tech course. Alternatively a course in Soft Skills should be offered to the students who seek employment immediately after graduating.
The changing global context has changed the requirements of the students. Teaching Technical English from a global perspective requires that the language used in Technical English should be easy to comprehend and also suit to all the contexts. If the material is simple, it can be exploited for language use. Technical English component needs to be integrated to language activity in order to enhance Listening, Speaking, Reading and Writing skills of the students. Moreover, the students need to be made aware of the local as well as the global expectations of the future employers.

This study pertains to various University colleges in Guntur District, Andhra Pradesh where Technical English education is being offered at the professional level. Quantitative data has been collected and analyzed. The results of the study indicate that the Basic English skills of the students require close attention. The students need to be made conscious of the Technical English as well as the Global English.

7.8.1 Need to learn the Basic English Skills and Natural Language

The students’ needs for learning the Basic English skills are quite important along with learning Technical English. The reason for introducing English at the professional level is usually to improve grammar, written and spoken English. During the first year of their course (I/IV B.Tech.) students look upto Technical English as a source for improving their English language skills. They give much importance to Speaking, Reading, Writing skills and grammar while least importance is being given to the Listening skills. Except Jawaharlal Nehru Technological University (Kakinada), the students of the other three Universities seem to be unaware of the importance of Listening in the process of language learning. The reason behind giving less importance
to Listening Skills is their lack of awareness that Listening is a prerequisite to ‘good’ Speaking Skills.

Another problem with the Indian users of English is that they make use of formal bookish English which is more often obsolete and sounds unnatural. This is because of the fact that Indian students learn English through books rather than by practicing it in real life situations. This problem can be solved by making the English courses more realistic and less literature-oriented. Keeping in view of these circumstances, there is a dire need to include communication skills right from the primary level so that the Indian students can learn to use English with felicity.

7.8.2 Need to learn Technical English according to the global context

Most of the Engineering colleges in India prescribe Technical English as a compulsory subject. An Engineering student is supposed to be already acquainted with the language through the secondary school courses he has completed, which varies in duration and standard according to different Boards of Education. With the enormous development of industry and technical subjects in the recent years, the Engineering students need to use British and American technical books and periodicals.

Furthermore, technical documentation of export machinery has to be made for foreign markets. Thus the problem is how to improve the performance of English in the Engineering field. Secondary school courses have proved to be insufficient from the point of view not only of vocabulary but also the structural patterns used by technically trained people. An English engineer, reading a translation of a technical text made by a non-native who has not been trained in Engineering, remarked appropriately: “His English is
all right, but we Engineers would not say it like this.” So, the endeavour of the English courses offered at the tertiary level should inculcate natural, simple English to the second language learners of English in India.

Along with studying the prescribed Technical English textbooks, there is a need to study the Technical English in global context as well. It would help to understand the global use of English language. There is a dire need of cross-cultural understanding to develop Science and Technology among the nations of the world. If local as well as global Technical English versions are studied at the same time, it would help the students to compare and contrast different concepts and ideas in the field of technology.

7.8.3 Need to bring correlation between the learners’ needs and the syllabus which is being used to teach Technical English

The Technical English course of the Engineering students falls under the category of an ESP (English for Specific Purposes) type. So, in the preparation of the material for such a course, the text writer will have to make a judgment as to the knowledge of the target learners and should attempt to make it relevant to them in content and vocabulary.

Learners need an ESP textbook which can equip them with the ability to handle the technical and scientific discourse in English. In an effort to assess the needs of the Engineering students this research has analyzed the prescribed textbooks used at present by the Engineering students in the four Universities -- Acharya Nagarjuna University, Jawaharlal Nehru Technological University (Kakinada), Koneru Lakshmaiah University and Vignan University. On the basis of the responses of the students and the teachers on this issue, an attempt has been made to discuss the shortcomings therein and to provide feasible solutions.
The linguistic factor has tended to dominate the development of ESP with an emphasis on the analysis of the nature of specific varieties of language use. Probably, this has been a necessary stage, but there is a need for a wider view. ESP should properly be seen not as any particular language product but as an approach to language teaching which is directed by specific and apparent reasons for learning. This means that ESP teachers are concerned more with designing appropriate courses for various groups of learners. As Tom Hutchinson and Alan Waters, in their book, *English for Specific Purpose* (1987: 21) have stated that there are three factors affecting ESP course design:

- Language descriptions;
- Learning theories; and,
- Needs analysis.

The interdependence of these factors in the process of course design is very important. The course design must bring the learner into play at all the stages of the design process.

The relationship is presented by Tom Hutchinson as follows:
According to Tom Hutchinson’s diagram, a thorough knowledge of all the aspects concerning an ESP course should be examined before making an attempt to offer such a course. Since the Technical/Management English Courses offered in these Universities come under ESP, those courses should be viewed more closely, juxtaposing the views of Hutchinson.

7.8.4 Need to change the syllabus

There is a need to change the syllabus as a whole as far as the results of the study are concerned. The students are less excited about the old pattern of the syllabus, consisting of difficult language concepts, without any variety. The students are aware of the importance of English language skills in this age of global competition. The frontiers of English language have been changing fast, with the growth in different branches of
knowledge and new inventions. Hence, the need to study this language accordingly has become the order of the day. The results of the study show that the learners and the teachers are not very satisfied with the syllabus and the results, after the delivery of that syllabus. So a change in the entire system is the need of the hour.

7.8.5 Need to change the Teaching Methods

A high percentage of the school leavers leave the precincts of the school as poor users of English. Despite learning English for a decade, most of the school leavers do not possess the required proficiency in English when they enter the college. As Dr. T. Bala Subramanian has said, “The mistake is in our Educational system itself. A teacher’s target is to ‘prepare’ his students for the examination and not to make his pupils competent in the use of the language they are learning” (1985: 56).

Pupils are assessed in all the States in India by means of a single examination conducted towards the end of the year. Language learning needs constant practice over an extended period and this can be ensured only if examinations are held at frequent and regular intervals; in other words, there should be continuity in learning and its assessment. In the words of T.C. Baruah (1991: 4), the present system of relying solely on an all important annual examination, therefore, does not serve the purpose. Hence, an ‘average’ teacher tends to teach nothing more than what the examiner is likely to require.

7.8.6 Standard of English Language Teaching

Factors of a heterogeneous nature varying from place to place and situation to situation do exist and create difficulties. Unmanageable numbers, poor classroom conditions, lack of infrastructural facilities, lack of cooperation from the managements in
providing stationery and other facilities, poor motivation on the part of the students, lack of support from home and society, pressures of heavy syllabus in other subjects, too many languages to be studied at the same time, unhealthy attitudes of the managements in many cases -- all these are the factors that often interfere with the teaching of English. Because of these adverse factors the standard of English Language Teaching is deteriorating drastically. Besides, there are other academic factors that contribute to the already existing inconsistencies in the system. English teachers working at tertiary level are basically Post-graduates in English literature but not experts in English language. A suitable teacher of language has to be competent on two bases: one is their own language competence; the other is competence in teaching the skills of the language. Most of them are not clear about the objectives of teaching English to various groups of students. The result is disastrous. It drives home the fact that, in general, the students are not found to be competent in English because of lack of skill-oriented teaching. As a result, even after studying the language for nine years they are not at their best in English. Therefore, an empirical study of the language skills developed in students has to be made.

7.8.7 Need to change Language Acquisition Approaches and Testing Methods with respect to cognitive learning styles

Language teachers need to evaluate the effectiveness of different types of teaching methods by taking into consideration various cognitive styles particular to their students. Each method requires the learners to think and act in different ways. Therefore, students would prefer to learn through certain methods depending on their cognitive learning styles. Various language acquisition methods depending on their cognitive learning styles have to be discussed at length.
Various language teaching methods have developed over a long period of time, reflecting the changing and varying views on how a language is acquired. Therefore, language teachers should evaluate the effectiveness of the various methods developed, taking into account specific factors and cognitive styles. Language teaching approach is the major contributor to the success in the rate of learning a foreign language.

One of the first approaches to learning involves a great amount of memorization, translation and recitation; it is called the Grammar Translation Method and it was the most popular method of teaching the classical languages, such as Greek and Latin. It is taught by the mother-tongue speaker of the target language. Acquisition of an academic grasp of the grammatical structures is the basis of such teaching as that alone is considered best for the learner to think systematically. Perseverance is necessary while trying to understand the logic of grammar through deductive reasoning. Accuracy in translation is the test of a learners’ success in language acquisition. Wilga Marie Rivers in her book, *Developing Language Skills*, opines that the Grammar Translation Method would make the learners introverted individuals especially when “the language learned is usually of a literary type, and the vocabulary is detailed and sometimes esoteric” (1981: 31). In a classroom situation, the attention is upon the teacher; so, students are heavily dependent on the inputs of the teacher. The Grammar Translation Method is most useful to individuals motivated to acquire a language as a means of attaining instrumental goals. It is not essential to speak up, especially since the highest priority is acquiring Vocabulary, Reading and Writing skills in the target language.

The Direct Method, unlike the Grammar Translation Method, requires active participation in the class utilizing the target language. The theory behind this method is
that the first and second language learning are similar. The learners should be able to
learn another language in the same way a child learns his mother tongue. Therefore, the
teacher does not refer to the native language. In the Direct Method approach, the teacher
creates a stimulating natural environment in the classroom using the target language for
learning. Students direct their attention to hearing the target language and then they try to
speak it. Accurate pronunciation of the target language has to be emphasized. Therefore,
these students must be able to discriminate the sounds of target language and be willing
to reproduce and practice them without inhibition. It is also essential for success, as
Wilga Marie Rivers has said, “in language acquisition to seek direct comprehension by
inferring meanings of unknown elements from the context rather than by seeking
equivalents in a bilingual vocabulary list” (1981: 33). The language learners tolerate
ambiguity when inducing functional grammar rules. To improve the students’ level of
proficiency, the teacher has to encourage a spontaneous expression of usage despite
grammatical errors.

Individuals most likely to attain proficiency, using this method, take advantage of
the relatively unstructured situation by trying to express themselves in the target
language. They learn from the context. Being field independent enables the language
acquisition. They are learners to be more inductive, which affects creativity in oral
production. It is more important to grasp the general idea of what the teacher has said
and then respond. As a result, the Direct Approach would be most suitable to the
language learners most interested in the practical use of a language and rewarding to
those who can learn by the inductive method.
Although the Direct Method also emphasises on oral production, the Audio-Lingual techniques aim to provide the students with instant responses in the new language. Kenneth Chastain (1971: 88) in his book, *Developing Second – Language Skills: Theory to Practice* has said that when people use a language, they are not able to think about the grammatical structures at the same time. Therefore, in the Audio-Lingual Method, mimicry-memorization and structural pattern drilling serve as oral exercises and reinforcement. With continuous practice, the active students can/will learn to handle the language unconsciously. After establishing automatic responses to oral or written stimuli, the learners should be able to gain command over written skills successfully. Success in using the Audio-Lingual Method requires active participation between students and teacher, although this situation does not mean that the real communication is necessarily achieved. Extroverted and assertive students will seem to be more proficient because of the emphasis on speaking, but introverted, reflective students are penalized, especially in oral production.

However, choral drills, for example, allow inhibited students to feel more confident rather than to become embarrassed from speaking aloud. From the very beginning, students should be made to learn complete utterances which are directly useful in conversation. As a result, the language learners feel a sense of accomplishment. Learners with integrative motivation would like the Audio Lingual Method, at least initially, because of the ability it provides in using the target language instantaneously.

Students who want to be certain of the meaning would find the Audio Lingual approach inadequate for second language acquisition because of the lack of explanations or delay in explanations until the oral practices are done. This method seems appropriate
especially for students who easily mimic anything without needing to analyze the grammatical structure first. Often, students’ textbooks have chants and songs with repetitive phrases because students like to mimic. However, highly analytical students find the dialogues artificial, and the drilling exercises, mechanical. Students who like rote repetition find the Audio Lingual method satisfactory for second language acquisition.

For those students who find the Audio Lingual method ineffective, the Cognitive Code Learning approach may be the answer. This method requires new grammatical structures that are introduced first, prior to the use of the structure. Based on the theory that competence precedes performance, grammar explanations and exercises are taught first, followed by application. Knowledge is acquired through active mental participation, implying that students must be aware of what they are learning meaningfully, unlike the audio-lingual method.

The Cognitive Code Learning approach emphasizes the mind processes of the information obtained. As in the words of Kenneth Chastain students learn the meaningful functions of language. They analyze as well as utilize the language because “the meaning resides in syntactical relationships and is expressed in semantic and phonological components” (1971: 131). In the cognitive code-learning approach, the four skills - Listening, Speaking, Reading and Writing - are presented at the same time. This form of teaching encompasses the entire arena of communication. Students with integrative motivation would adhere to the cognitive code-learning approach because of the global perspective of second language acquisition. This approach would be more suitable for more field-independent adults because adults are able to monitor strategies. They need to be systematic as well as intuitive thinkers.
Cognitive Code Learning allows opportunities for innovative and creative language formation. Students who are assertive and reflective will gain advantage while practicing the target language in a demanding situation. There are a few classroom drills that actually teach the functional use of grammatical patterns as opposed to the verbatim regurgitation of the material. To be successful in language learning, these students need to have more self-esteem so that they will not feel ashamed of making mistakes. It is the meaningful level of language that the Cognitive Code Learning approach stresses.

The silent way is also concerned with meaningful communication and self-expression. Students inductively analyze the teacher’s output and then contribute to the class when they think they are ready. This approach stresses on healthy interpersonal relationships in the class. That is, the rapport among the students and between the teacher and students must be ‘good’ in order to achieve genuine communication. The silent way has therefore almost eliminated teacher intervention in order to develop individual learning strategies. This technique allows the students to say more and more based on their own thoughts and feelings. Students with high self-esteem and assertiveness will benefit from the silent way. They must be able to pick up the language cues and then produce them in order to communicate with others.

However, the students also need to be patient and persevering in order to learn a language through the silent way. The students’ initial encounter with the language is inductive. In addition, acquiring the language is the students’ responsibility. But since the students assume the responsibility for their own learning, they also receive the credit for what they learn. In this process, the teacher guides the students; but, the students judge for themselves on the correctness and appropriacy. Also, the students must be able
to tolerate ambiguity and be analytical and reflective until they can understand the teacher’s input. Therefore, the silent way is very time-consuming and highly self-monitoring. The students, who are most likely to succeed, are self-motivating adults desiring to learn functional grammar and speech.

The Communicative Language Learning approach places much emphasis on the students’ involvement as a supportive interacting group. In this model of education, students are now referred to as clients and the teacher becomes the counselor. The language learners control the learning environment to eliminate defensive learning. Allowing the clients to choose the type of conversation is an attempt to overcome the fear of teacher dominance. The Communicative Language Learning approach tries to create the best environment conducive for learning.

Language learners in a Communicative Language Learning setting must provide guidance and motivation for language use and create an urge for speaking. Because the teacher is non-directive, the learners must be supportive, but assertive. Instead of featured pattern drills, students can choose what they want to learn and say. Learning functional grammar by induction necessitates some tolerance of ambiguity and field independence. Successful language learners need to be capable of perceiving grammatical structures in order to utilize them to express their ideas or opinions. Because the students are responsible for what they want to learn, the interest and motivation in learning is higher. Personal freedom to choose learning material accommodates certain affective methods of language acquisition.

Since affective variables and a humanistic environment seem to contribute much to language acquisition in the Communicative Language Learning approach, the learners
with an empathetic personality will be able to establish a non-threatening environment. Patience on the part of the teacher is necessary, so that the student’s anxiety and tension are reduced. Individuals must be willing to communicate their own personal feelings and opinions. For meaningful exchange, students need self-confidence and the proper environment in a classroom would to minimize identity crisis and inferiority feelings. As a result, the individual language proficiency reflects group interaction as well as personal input in the Communicative Language Learning Methodology. In India, with reference to English, oral comprehension and production are totally neglected. Students are rarely asked to speak in English in the classroom. There are very limited opportunities to speak in English outside the classroom. In this context, the Communicative Language Learning methodology appears to be a suitable method at present.

However, an eclectic method, taking the useful features of all the methods that suit the Indian students, is the best solution to the problem of methodology of teaching English to the Indian students. For example, learning of a rich vocabulary and grammatical structures of the Grammar Translation Method suits the psyche of an Indian student. But, as oral communication has gained an edge in this globalised world, the Audio-lingual Method can also be combined to a certain extent. The oral and written practices of the Direct Method with focus on the cognitive language learning aspect would also help the Indian learners of English. Communicative Language Teaching Method would help learn ready communication; and, all the other methods would enhance the learning of all the other skills. However, skill integrated methodology should be adopted to reduce the inhibitions of the learners and speed up the rate of their learning.
These are some of the methods used in learning English as a second language. However, the success of language acquisition depends on the personality of the teacher, the involvement of the students and the ambience created in the classroom. The role of the language teacher and the responsibility of the learners also determine which method or which technique in a method would be suitable for better results. By evaluating old methods and exploring new methods, language teachers and learners can work together for better understanding of the processes and success of second language acquisition.

The other side of the coin of success in language acquisition along with the method of teaching is the Testing Pattern. In any learning programme, the success of its conduct is measured by the performance of the target learners at the end of the programme. So the Testing Method or the Evaluation pattern acquires equal importance along with the teaching method.

The main hurdle in the process of learning English in India is the erroneous testing pattern, both in the General English courses and the ESP courses. The pattern of evaluation adopted for the General English courses offered upto the +2 level is not conducive to test the language skills of the learners. Giving a few exercises in grammar or vocabulary does not make the testing pattern credible. The comprehensive language testing system is shown in the international tests such as GRE, TOEFL, SAT, IELTS etc. But the tests of English courses conducted at school or college level in India are not in line with those authentic tests which measure the acquisition of the language skills. The comprehensiveness shown by the international testing systems is totally missing in the local tests for English.
The main problem for the English learners of India is: different language skills are taught and tested as water-tight compartments and not as mutually complementary processes. A brief discussion on how each skill is taught and tested might illustrate this fact better. As it is, the syllabi of English still have the hangover of Macaullian pattern of prescribing some disparate extracts under the headings Prose, Poetry, Grammar and Non-detailed text. It is true that a text is a “pretext” in the language teaching situation. Even these texts could be made use of to teach English, provided the testing system is strong. If the testing is made conducive to evaluate the language skills, the classroom teaching methodology too can be changed accordingly. A glance at the reason is beneficial to make the needed correction.

1. Writing Skills

The lessons in the Prose and Poetry Sections of the English textbook can be used for inculcating Reading, Writing, Vocabulary enhancement and Grammar skills. But they are rarely used in teaching vocabulary or grammar involved. Different books are being used to practice grammar items and learn new vocabulary. The Prose and Poetry section is being used purely for content-oriented questions; this practice goes against the spirit of testing the language skills. It is not helpful for even teaching Writing Skills as is generally assumed; because, the students generally mug up the readymade answers either from the teacher’s notes or from the substandard guides and reproduce them in the examination. As no question is given on writing an essay on a general topic, no exercise is done to teach essay-writing; thus, writing as a productive skill is neither taught nor tested. Reproducing the pre-memorized texts would hamper the organizational and creative aspects of the Writing Skill.
2. Reading Skills

The purpose of prescribing two textbooks – one for detailed study and one for non-detailed study is totally neglected. While the detailed study text can be used for Intensive Reading skill involving scanning skills and other sub-skills of reading such as silent reading, loud reading, speed reading etc., the non-detailed textbook, called Supplementary Reader, can be used for cultivating Extensive Reading skills. But the teachers are not oriented to the ELT methodology; consequently, they depend on the lecture method and end up teaching everything that is prescribed without giving an opportunity to the students to learn or practice whatever little they have learnt in or outside the classroom. All this is done under the guise of “completing the syllabus”. And the main culprit in the entire process is the wrong method of testing, which is content-oriented and not skill-based. Thus, the Reading Skill is not cultivated properly. The learners lose the opportunity to benefit from the Reading--though they have the prescribed textbooks--and this hampers the advantages of Reading in an ESL situation. Improving the use of one’s imagination, predicting and guessing skills, enrichment of vocabulary and unconscious absorption of the structures of the second language--all these are denied to the Indian students who is not allowed to explore the nuances of language through cultivating the Reading habit.

3. Vocabulary Enhancement

Vocabulary is always learnt in context, either in comparison or contrast with the existing knowledge of the learner. This could best be done with the help of the texts prescribed. But the sad fact is that the vocabulary items taught and learnt are mostly
from isolated lists. Even while teaching these words, the right method is not adopted either because of ignorance or indifference. To teach one single word, the following features should be dealt with:

- Spelling
- Syllable division
- Stress and pronunciation
- Four or five common meanings of the word
- Derivations
- Use of the derived words

But, the method of giving the meaning readily while reading the lesson aloud does not fall in toe with the ELT methodology. There is very little scope for any exciting exploration of new words on the part of the students; hence, they become passive observers instead of being active participants. Even the testing of vocabulary items is erroneous; it is done through isolated exercises, which makes a heavy demand on the memory of the students, more than their understanding of the words.

4. Grammar

Grammar is the basis of any language; a second language learner particularly needs an inductive understanding of the grammatical structures. While the L1 is acquired through exposure from childhood, L2 is generally acquired through conscious learning; hence, explicit teaching is necessary in the ESL context. But, what is missing in the Indian context of English teaching is the adequate practice that should follow the teaching of grammar. Even the teaching and testing methods followed at present are not conducive to testing grammar as the basis of language. It is taught in isolation and tested in isolation without any reference to the use or the latest usage. So the Indian students
learn obsolete grammar and structures, from outdated books; and, as the testing system is not authentic, they tend to forget what they have learnt after the examination is over. For example, the Passive Voice is taught and tested extensively; but the students are not aware of the situations where the Passive Voice should be used. Conversion of Active to Passive Voice or *vice versa* is the most meaningless practice that is prevalent in the teaching of English in India. Many such grammar exercises still exist in the English books produced and followed in India and the students remain unaware of the right use of the language in spite of studying English grammar for a decade.

5. Speaking Skills

Speaking is the gravest casualty in the ELT situation in India. This skill was never included in the English syllabi. Before the advent of globalisation, teachers were also not aware of the “knowhow” involved in teaching and testing of English Speaking Skills. It is taken for granted that a prescribed syllabus and attending few classes in English classes would make the students automatically proficient in Speaking Skills in English. The mushrooming of the private Spoken English Institutes is a proof of the failure of the public sector in inculcating Speaking Skills in English. Even in the courses where Spoken English is prescribed, the teachers are not properly oriented to deliver the course properly. While the syllabi contain items such as the Phonetic symbols and organs of speech etc, the teachers themselves are not trained to teach them. In fact, the theoretical knowledge of Phonetics and Phonology should be given to the English teachers and not to the learners of English. What the students need is the English sounds which a trained teacher can very well train them in. Though the spoken English component in many of these books has innumerable examples provided through several
speech patterns, the teachers is not sufficiently trained in this respect. More grave than this fact is the total indifference to the pronunciation and speech delivery. The following Basic Features of Pronunciation create problems for Indians and they are not included in any English syllabus which claims to teach ESP courses. Even when some of them find place in the syllabus of a few Universities they are not taught or tested properly:

- Problem Sounds for Indians
- Syllabic Consonants
- Silent letters
- Double Consonants
- Strong and weak words
- Stress and Pronunciation
- Sentence Stress and Intonation
- Elision
- Assimilation
- Ellipsis
- Tone Units
- Features of Discourse
- Formal and informal language
- Positive and Negative words/expressions/gestures etc.
- Turn taking/Responding
- Paralinguistic features such as, Verbal, Non Verbal, Vocal, Non vocal

Though the syllabi at the tertiary level includes Verbal and Non Verbal features of English, the teacher ends up with long lectures not followed by the necessary practice. Teaching and testing of these features along with exercises on producing speech acts, would not only ensure ‘good’ Speaking Skills for the learners; their diffidence to expressing themselves in English can also be overcome.
The crux of the problem lies with the whole approach to the Testing System of English. As the main purpose of taking a course is gaining the maximum scores possible, the students would concentrate on getting as high a percentage as possible in the final examination. The success of a teacher is also measured on the scores obtained by her/his students. So, in a language teaching context, unless the testing is made skill-based, the teaching would not become skill-oriented. It is the Testing system that has a direct impact on the teaching methodology followed in the classroom. So the educators should seriously contemplate on the Tests conducted for English at all levels. For higher levels such as Junior college and tertiary level, the models are available from the international Tests in English such as GRE, TOEFL, SAT, IELTS etc. Within the Indian situation such models can be adopted and the testing can thereby be made more authentic, meaningful and ultimately useful for the learners. This would ensure teaching of English following the right methodology.

In ESP courses, the testing system should be more authentic than in the general English course. At present, even the Universities which claim to have introduced “Technical English” course to the students of Engineering and Technology faculties have not evolved a suitable testing of an ESP course. The approach to the test of an ESP course is different: it should include testing of both the language proficiency as well as the vocabulary in that field. Just asking them to write a technical report does not make the test an ESP test. The teaching should take care of the vocabulary and structures to be used in writing a technical report. One solution for this problem could be to make use of the technical texts that those students study for their optional subjects. But to achieve success in this type of testing, the teachers should be thoroughly oriented to teach and test
technical English. So before introducing ESP course in various faculties, inhouse training should be made compulsory for the English teachers offering a particular ESP course.

7.9 SUGGESTIONS AND RECOMMENDATIONS

The present study has some suggestions and recommendations to offer, keeping in view the requirements of the students from a global perspective:

i. The existing syllabi of technical English should be changed as the modern student needs competence in English communication skills in the rapidly changing world. Prescribed Technical English textbooks alone cannot be termed as sufficient to meet the needs of the students. There should be an integrated approach to the teaching of language.

ii. The demand made by the dominant nations of the world should go hand in hand with the value-system of the lesser ones. In order to preserve one’s native culture and value-system there is a need to re-orient English Studies. It cannot be done without involving expertise from one’s own country in designing a programme of study, more so when it comes to professional courses.

iii. There is a need to encourage the materials published locally. It can be done by incorporating them in the syllabus. This step would encourage the publishers and the authors to produce local materials of high standard.

iv. To promote peace and harmony in the world, developing cross-cultural understanding is the need of the hour. At the educational level, it can be promoted by using literature as source material. Instead of teaching English literary texts of the previous centuries, Contemporary English literatures from different parts of the world can
serve as a suitable source material to accomplish this purpose. This would not only make the content relevant; it would also help the students acquire the knowledge of stretching the limits of the language.

7.9.1 **Objectives of the suggested syllabus**

In the light of these findings, the objectives of the suggested syllabus can be the following:

i. To fulfill the needs for Basic English skills (Reading, Writing, Listening, Speaking, Grammar, Vocabulary)

ii. To develop an awareness of Technical English

iii. To give knowledge about the global Technical English

7.9.2 **Suggested Approach to the Engineering Students**

The ‘average’ Engineering student is an adult who wants to use all his faculties while learning. He is not satisfied with theoretical explanations of how an engine works; he wants to see it working. While discussing a problem, he takes a pencil out of his pocket and sketches designs or writes formulae and figures to express his thoughts more precisely and clearly. He understands much better if he makes full use of all the senses: sight, hearing, and touch. He is used to looking at graphs, photographs, models, sectional views of machine structures, and films describing various technical processes. He often visits factories and workshops. That is his natural way of acquiring new knowledge and experience and applying his theoretical background to it. The teacher of English has to approach the student in the same way. Besides the reading material, which gives a ‘good’
basis for mastering the language, the classroom can be supplied with photographs, drawings, diagrams, a tape recorder, a film projector, and other audio-visual equipment.

7.9.3 Suggested Study Material

The selection of material needs some consideration. The texts have to be short but give the basic terminology of the specialist subject. They also have to be varied, so as to cover all the essential branches of Engineering. Furthermore, each text has to represent a logical unit of thought, and not a passage taken at random from an Engineering book. Such an extract would be most unsatisfactory, as it would lack logical unity. A great deal of attention has to be also paid to gradation, starting with easier texts and passing on to more difficult ones. Students should be encouraged to discuss the content, or to give answers to questions closely connected with the topic. Various exercises can also be carried out in order to enlarge and enrich their vocabulary and usage.

Practical training and use of necessary software will prove to be very helpful. In an Engineering College, when students are asked to describe the operation of an engine or a technological process which can be found in an industry, the stress is laid on the learning of “Engineering” verbs, essential in describing various operations of the machinery. Exercises in ear listening training are given with the help of a tape recorder. The students listen carefully to a short passage recorded at a slightly reduced speed and then are required to give the gist of it. The recording and re-play of sentences are read alternately by the teacher and the students; and, their pronunciation is corrected. Short sound films explaining some process in production lead to animated discussion, though
the visual effect is stronger than the auditory which means that it is difficult to reproduce the text which has accompanied the picture.

7.9.4 **Suggested Activities in the syllabus (both for teaching and testing):**

**Developing Reading Skills**

Extensive reading material should be provided to the students to choose and make their study. Passages on various topical themes can be given for both intensive and extensive reading. Appropriate questions on comprehension and vocabulary should be provided at the end of each passage, which the student has to work upon. The tone should be made familiar and the critical and analytical reading should be encouraged, paying attention to the use of language.

**Developing Writing Skills:**

Writing short and long essays on general and technical topics should be encouraged. Different types of writing such as humorous, informative, argumentative, inferential, descriptive or analytical narratives should be introduced to the students.

**Developing Speaking Skills:**

It involves using language in different communicative contexts. Presenting ideas using English language effectively is also a part of it.

**Developing Listening Skills:**

It involves the process of attentive listening. It also involves how to comprehend the message fully within a short duration. Recorded tapes of different speeches would be used to inculcate listening in the students.
Developing Grammar Skills:

It includes writing without grammatical mistakes. It also includes understanding the rules of the grammar so that language used is systematically correct. Adequate practice has to be provided to the students.

All the above activities should be carried on by the teachers who play the role as facilitators. It should be a learner-centered classroom for better language acquisition. The curriculum of the course should reflect the syllabus; it has to be followed by instructions provided to the teachers on the use of supplementary materials and the extra activities, to cater to all the students of the class and their diverse proficiencies. It is rightly said that more than a program’s course-content; a curriculum is a contested representation of the public identity of an institution and a discipline.

7.10 CONCLUSIVE REMARKS

Depending on the ethos of the institution, the aspirations of the clientele, the demands imposed by the social, cultural, academic and professional situations where the clients/students are supposed to move about in reality, the subject knowledge aimed at to be achieved in the course, the academic and professional background of the teachers, the facilities available within the institutions, there is a need for a systematicity of a course of study, and the method of teaching aimed to be applied in classroom management. An understanding of the curriculum would be important for decision makers as well as the teachers and the students who are concerned with the development and implementation of it. The right conceptualisation of the curriculum guarantees a reasonable adherence to it by the teachers and students, and the success of a course lies in the successful implementation of the curriculum.
Specialists in English Language Teaching interpret the act of syllabus design and course planning as the translation of goals, objectives and targeted outcomes into a decision about the structure of courses within the curriculum, the distribution of course context, breadth and depth of content coverage at different levels, adaptation of different syllabus frameworks leading to the achievements aimed at in the entire curriculum development endeavour. The trend of the course to be grammatical, skills-based, task-based, content-based, or situational is determined in the event of designing the syllabus and planning the course.

‘Curriculum’ is concerned with the planning, implementation, evaluation, management, and administration of the educational programmes. ‘Syllabus’, on the other hand, focuses more narrowly on the selection and grading of content (Nunan, 1988: 8).

In fact, whatever transpires in a classroom in terms of achieving knowledge, practice, experience, or expertise is realised though the contents of the syllabus.

The contents of the syllabus lead to two activities with regard to learning materials used in a course: (i) selection and (ii) development. Materials are found in three different ways:

(1) Recommending complete books produced by commercial publishers under the authorship of various experts,

(2) Extracting materials from such sources and producing collections of materials to suit the syllabus or syllabuses, and

(3) Creating the institution’s own materials based on their experience of the learner’s potentials.

This is a very crucial activity as it directly addresses the accomplishment of goals, objectives and targeted outcomes stipulated in the curriculum.
Armed with a thorough awareness of the learner needs, a clear perception of the situation, a logical syllabus design, and a portfolio complete with materials that match the syllabus contents, the teachers and educational managers will have to carry out course piloting.

By course piloting, Snyder and Stoller (2003) mean the implementation of a course with on-going evaluation and fine-tuning it “in response to evolving student needs, teacher abilities, institutional goals and objectives etc.” Here, the implementation of a curriculum is endowed with an organic value as all aspects of it are recognised to be evolving, or growing, or changing in course of time.

Richards et al. (1985: 70) define curriculum as:

An educational programme which states (a) the educational purpose of the programme (the ends); (b) the contents, teaching procedures and learning experiences which will be necessary to achieve this purpose (the means); (c) some means for assessing whether the educational goals have been achieved.

A clearer view of the curriculum emerges from an excerpt from Richards (2001: 2). According to him, the curriculum is a comprehensive, ongoing, cyclical process which determines:

The needs of group of learners; to develop aims or objectives for a programme to address those needs; to determine an appropriate syllabus, course structure, teaching methods, and materials; and to carry out an evaluation of the language programme that results from these processes.

In order to ensure that a suitable procedure is established for the development of a course of study, Snyder and Stoller (2003) have suggested that the following tasks have to be carried out:

- Need Analysis
- Situation Analysis
- Specification of goals, objectives and outcomes
- Syllabus design and course planning
- Materials selection and development
- Course piloting
- Course evaluation

These tasks are so interrelated with each other that none can be completed without carrying out the others in the order presented.

Like all other aspects of curriculum development, curriculum evaluation has a strong effect on the success of the curriculum implementation. Evaluation has to be carried out at all preliminary stages of curriculum development in a formative sense, and finally at the last stage in a summative sense as it guarantees the success and smooth conduct of the course. Evaluation helps understand how successfully a programme works and whether it, in all its complexity, is responding to the student needs, teacher abilities, etc. The evidence of success can be produced on the results earned at the evaluation and, therefore, evaluation requires to be considered indispensable in every stage of the course.

Development, change and innovations in the curriculum cannot be done as a separate activity; rather it should embrace the entire management of the institution with a powerful staff. The staff is not only a group of teachers, but it is also a group of individuals working as curriculum developers, syllabus designers, material developers, quality controllers and simply educational managers in a collaborative academic atmosphere. There is a need for an interactive research-oriented staff development mechanism that would make them.

- Evaluate alternative approaches and technologies in a range of learning contexts.
- Engage with relevant research, best practice and critical communities.
- Design, plan and take forward a course.
- Work effectively with colleagues to identify and overcome difficulties.
- Motivate and support others in the development process.
- Evaluate progress against stated objectives
- Critique organisational context and work appropriately to promote change.
- Communicate their findings and conclusions to relevant professional audiences.
- Assess and plan their own professional development needs.
- Reflect critically on their own practice, seek feedback and adapt appropriately.

The institution should create an atmosphere where the staff become reflective practitioners when they have a tendency to evaluate alternative approaches and techniques by engaging themselves with research and practice communities. In fact, the quality of the curriculum lies in the professional attributes and skills of the members of the staff as course designing and curriculum implementation is a dynamic process which materialises through the operational behaviour of the staff.

The sustainability of quality in a curriculum, however, is not a responsibility unilaterally handled by the teachers or the members of the academic staff only. It is a responsibility of all persons who are engaged with it. That means, the students also have a role to play in the maintenance of quality in a curriculum. All teaching and academic administration should be informed by an understanding of how students learn the conditions and processes that support learning. Helping students learn should include a recognition that all students have their own individual learning needs. All teaching should be underpinned by a searching out of new knowledge – both about the subject/discipline and about good teaching and learning practices. All teaching should
also lead to students developing questioning and analytical approach.

The awareness of learner behaviour, the concern for learner development, the commitment to scholarship and research, the engagement in collaborative academic ventures, the understanding of diversity within classroom dynamics and the reflection on one’s own professional practices for realising the objectives and goals, help create a suitable atmosphere for a well-planned course-design and curricula.

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