

Teaching/Learning of EST Students' Communicative Competency: A Brief Study

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Abstract: *English is widely acknowledged as the most imperative language; and it has also become the official language of commerce and science (Schütz, 2005). This paper highlights that the importance of communication skills to the students of Science and Technology. ESP (English for specific purposes) programs or courses could help the engineering students carry out the work-related communication tasks around. The CLT technique is critical for improving learners' communication abilities.*

Keywords: CLT technique, Communicative Competency, ESP, EST

Introduction

In the modern world, English has become one of the most significant academic and professional instruments. English is widely acknowledged as the most imperative language to acquire for the expanding global community, and it has also become the official language of commerce and science (Schütz, 2005). The international movement of academics and researchers is facilitated by English as the global academic language (Graddol, D., 2006).

Since English is an effective instrument frequently utilized in global communication all over the world, it has become a required component of an effective personality as a result of globalization. The teaching of English for science and technology is a specific activity in the teaching English.

In the present generation, most of the Engineering students are lacking communication skills so that they should be given special training of English language communication skills for their future achievement in education and career. It is difficult for the students of Science and Technology to learn English. As per the reports of NASSCOM and other surveys, the students of Engineering are not acquiring what skills needed to the industries. The aim of this paper is to teach and develop the needed communication skills to the students of Science and Technology. It is also aimed to identify what type of language needs required to the Engineering students in order to comprehend the nature of English for Science and Technology.

English is a second language in India, as per the constitution. India is a former British colony with a multilingual population; hence English is still used for communication among people who speak other languages. English is frequently utilized in public schools and higher education institutions, as well as at conferences, meetings, private companies, and major establishments for educational reasons. English is commonly used in advertisements, and the majority of newspapers and magazines are published in English.

English as a Lingua Franca

English has long been regarded as a universal language of intercultural communication amongst people who do not speak the same original tongue. As a result, it is known as the contemporary world's lingua franca. English is widely utilized in India as a language of instruction for significantly greater communication in everyday social interactions. It is true that it is a language that is widely used in India for multilingual communication.

Students attending college for higher education are anticipated to have adequate English language abilities to fulfill the requirements that come with using it as a medium of higher study. They will be expected to listen to English lectures and take notes; they will also be expected to read and

comprehend subject matter from books that are either prescribed for study or indicated for reading, as well as take notes. They will also be expected to write all of their coursework and assessments in English, as well as speak on specific subjects.

Purpose of the Study

The present paper attempts to assess the needs of students in learning English as part of the B.E./B.Tech course/syllabus. The needs assessment would be based on the perception of the needs by the students of Science and Technology. The views of these students would be taken into consideration and interpreted by the researcher.

In this attempt the students are asked to give their opinions on the classroom methodology, internal assessment, evaluation pattern, etc. Taking the opinions of students into consideration, suggestions would be given on classroom methodology, the kind of exercises to be included in the instructional materials, internal assessment, evaluation pattern, etc. Some teaching strategies would be proposed in order for a better learning experience as well as getting the learners benefited in achieving the skills required.

Research Methods and Findings

In this study the combination of quantitative and qualitative methods is justified; and a comprehensive description is provided for each aspect of the study. To acquire the data needed to address the research problem, qualitative research methodologies are used in this study. The primary data gathering instruments are a questionnaire, an interview, and classroom observation. Data collected was analyzed both qualitatively and quantitatively to find out the related research problem and questions, and what conclusions could be drawn as possible solutions to the research problem and answers to the questions.

The questionnaire data were gathered from 120 B.Tech students belonged to different Engineering Colleges affiliated to JNTU, Hyderabad. The results of the data collected from the questionnaires and semi-structured interviews and classroom observations were tabulated and graphically demonstrated the Information on the Research Findings.

Needs Analysis Questionnaire to Students was conducted for 120 students of B.Tech Degree of 1 to four years belonged to various Engineering colleges affiliated to JNT University in order to find out the students language needs. A close-ended questionnaire was administered with ten categories. The students were instructed to give the ranks for the skills cited in the questionnaire. The student's responses were collected tabulated, and final rank for each category was computed.

The following table-1 shows the first THREE RANKS given by the participants to the questionnaire containing ten categories of language skills and sub-skills. The number of participants is 120.

Category	Language Skills and Sub-Skills	Students' Priority		
		First	Second	Third
1)	Listening skills (comprehension of scientific texts)	45	40	21
2)	Speaking skills (defining and describing objects, role-play, seminar presentation etc..)	41	48	09
3)	Reading skills (types of reading, understanding the gist etc..)	06	07	49
4)	Writing skills (defining, describing objects, summarizing, etc..)	01	07	10
5)	Professional Speaking skills (job interviews, G.D.debates, presentation, etc..)	13	07	09
6)	Professional Writing skills (business letters, reports, proposals, projects)	02	03	02
7)	Study skills (Outlining the text books, summarizing, paraphrasing, etc..)	01	02	12
8)	Referencing skills (locating information from texts, making reference from technical books, journals, articles etc..)	00	00	01
9)	Grammar skills (knowledge of special grammar items used	10	06	07

	in EST like nominal compounds, impersonal passives, conditional structures etc.,)			
10)	Interpretative and Appreciation skills (tracing implications in a text and validating the text with reference to other texts)	01	00	00

Table 1

Chart 1- The First Three Ranks of the Ten Categories of Language Skills

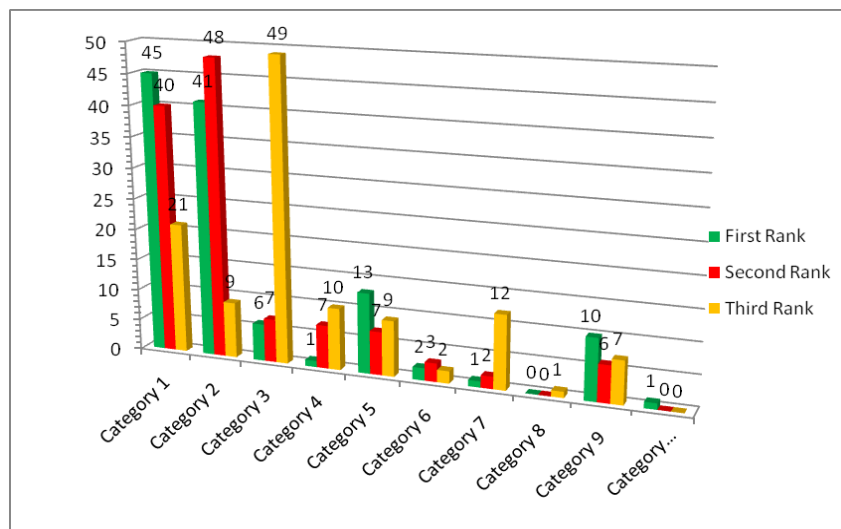


Chart 1

According to Chart 1, Among the 120 participants, 45 students have given first priority to Listening skills, 48 as second priority to Speaking skills, and 49 as third priority to Reading skills.

Table 2 shows the students' responses to the questions 1, 2, 3, 5 and 6, which are demographically presented. No. of participants = 120

S.No.	Questions Asked	Students' Response	
1	Do you know the specific features of EST?	27	Yes
		93	No
2.	Do you agree that the English teachers of Engineering Colleges require a particular set of competencies than those of the General English teachers?	118	Yes
		02	No
3	Whose job is to teach you the language of Science and Technology? (English teachers / Subject teachers/Both)	26	English-teachers
		11	Subject- teachers
		83	Both
5	Do you want the EST Teachers to give you theories of learning?	86	Yes
		34	No
6	Do you want the EST Teachers to be facilitators, knowing the strategies of modern class room teaching and activities and techniques?	120	Yes
		00	No

Table 2

Discussion

Needs Analysis Questionnaire to Students reveals that students of Engineering and Technology recognized English as skill-oriented and given importance to its basic language skills and sub-skills. Their priority is as: 1. Listening, 2. Speaking, 3. Professional Speaking, 4. Grammar, 5. Reading, and 6. Professional Writing. According to the data collected from the students, the English teachers of Engineering Colleges needed a particular set of skills/competencies than those of the General English teachers. 100% of the students want the Teachers EST to be facilitators, knowing the strategies of

current class room teaching and requiring the classroom activities and making the students active participants in the class. Some of the students have expressed their views as:

- Students should be given opportunity to practice the language skills in the classroom and participate actively in the events like debates, group discussions, seminars, etc.
- Teaching of phonetics is necessary for students to learn correct pronunciation.
- Students should be equipped with latest technology and multi-media software.

Furthermore, EST teachers should motivate the students to know the importance of the skills of LSRW and to learn them interestingly, teach latest and technical vocabulary, have a psychological understanding of students in a friendly atmosphere and jovial in the classroom.

In the course of research study, the process of development of EST for the Engineering students was examined. Multi-faceted methodology was applied to generate relevant data. Surveys and classroom observations were conducted to collect the needed data to deal with the research questions. The data collected was analyzed both qualitatively and quantitatively. This study is very much useful and practical information to develop the competencies/skills of the EST teachers so as to meet the needs of the students of engineering and technology.

Recommendations and Implications

With regard to Needs Analysis Questionnaire to Students (Appendix I), English Language Communication Skills like LSRW are given so much importance in order to meet the needs and demands of technical education and career advancements. In the opinion of the students the EST teachers in Engineering Colleges require a specific set of competencies than those of the teachers General English. So the students of engineering and technology expressed that they should be given opportunity to practice the language skills in the classroom and participate actively in the events like debates, group discussions, seminars, etc.; teaching of phonetics is necessary for students to learn correct pronunciation; and they should be equipped with latest technology and multi-media software.

Having kept the views of the students in mind, the researcher has given some implications such as students should be motivated, provided opportunity and encouraged to participate in the skill-based activities or tasks which are brought up here under.

More specifically, such an ESP (English for specific purposes) programs or courses could help the engineering students carry out the work-related communication tasks around: 1) conversation skills (listening and speaking skills), 2) reading skills, and 3) writing skills. The reading and the writing tasks of the engineers' work requirements could come into one of the four categories: informational, visual/figure, report and procedural tasks.

The following is a summary of task and knowledge/skills under Conversation, Reading and Writing skills based on the findings of this study:

Table 3: Conversation Tasks versus Knowledge/Skills

Conversational Tasks:	Knowledge/Skills:
1) describe graphs/statistics/machine performance; 2) attend a meeting / seminar / conference; 3) give instructions; 4) describe causes and effects of problems; 5) make an oral presentation or a report; 6) describe numbers; and 7) tell the time.	1) telephoning, 2) talking about machine specifications, 3) discussing production errors and their solutions, 4) meetings, 5) leading factory tours for their overseas visitors, 6) making an oral presentation, 7) understanding instructional manuals provided through computer video clips, 8) understanding oral presentations from other departments.

As a matter of fact, in the current work requirements, the engineering community/ students are expected to listen to video clips of modern machines/devices' instructional manuals, oral presentations, reports as well as attending meetings and specific trainings. As per the **Table 3** they are required to present work-related reports, making oral presentations and discussing their work. In face-to-face interactions, such as discussion and negotiation in solving their professional problems, as well as talking over phone, the engineers need good English skills of both listening and speaking to perform oral communication successfully.

Table 4: Reading Documents/Tasks versus Knowledge/Skills

Reading Documents/Tasks:	Knowledge/Skills:
1) instructions on how to perform job;	1) engineering manuals, reports, articles, work projects and textbooks;
2) worksheets;	2) customer-related documents;
3) equipment manuals;	3) workplace-related documents such as quality problem documents;
4) computer-presented reading materials;	4) information/instructions from computer software packages and on the internet;
5) tables;	5) emails either from customers or within the workplace
6) graphs;	
7) emails from customers;	
8) suppliers;	
9) professionals.	

The engineering graduates have to read new know-how, instructional manuals, messages and documents in their work. There are some frequent reading-documents involved in engineers' work routine, which involve specific knowledge/skills for reading, such as equipment manuals, technical texts, and reporting of technical notes, reading statistical data, emails, journal articles, business letters and quotation papers as outlined in **Table 4**.

Table 5: Writing Documents/Tasks versus Knowledge/Skills

Writing Documents/Tasks:	Knowledge/Skills:
1) graphs;	1) describing how things work and describing a process,
2) tables;	2) corresponding by facsimile,
3) emails to customers / suppliers / professionals;	3) responding to emails,
4) equipment manuals;	4) completing workplace and customer forms,
5) job completion reports;	5) preparing work projects, documents regarding quality assurance for reports to customers
6) statistical data;	
7) instructions how to perform job; and	
8) analysis report of problems.	6) preparing minutes of meetings

As well, the so called engineers communicate in written form through emails, letters, faxes and so forth. The writing tasks and their relevant skills are set out in **Table 5**.

Teaching Methods and Classroom Activities

Language theories or the nature of language have been divided into three categories: structural, functional, and interactional perspectives. Grammar Translation, Oral Approach (Direct Method), Situational Approach, and Audio-lingual Approach are examples of teaching approaches that spring from the notion that "language is a system of structurally connected elements."

Learners need not only grammatical rules to learn a language, but they also need to grasp words and be able to employ both in real-life situations. Interactive language teaching methods, alternatively, include Content-based education, Task-based language teaching, and Competency-based language teaching.

The capacity to utilize language accurately and appropriately to achieve communication goals is referred to as communicative competence. This well-known framework comprises four kinds of language competence: linguistic (grammatical competence or accuracy), sociolinguistic (the extent to which utterances can be appropriately used or understood), discourse (ability to combine ideas to achieve cohesion and coherence), and strategic (ability to combine ideas to achieve cohesion and

coherence) and strategic (ability to combine ideas to achieve cohesion and coherence) (ability to use strategies to handle language knowledge limitations).

Classroom Activities

1. For listening and speaking, the below the following activities are conducted in the classroom: seminars and group discussions, Simulation, role-play are mainly suggested for listening and speaking skills.
2. For reading and writing, the below the following activities are conducted in the classroom: various kinds of reading-comprehension tasks on science and technical texts are mainly recommended particularly on scanning, skimming, extensive reading, intensive reading, etc.
3. For grammar and vocabulary, the below the following activities are conducted in the classroom: students should be asked to recognize tenses, sentence structures, use of modal auxiliaries, conditional sentences, and connectives in technical texts during the practice of reading and writing tasks.

In this study the possible implications for teaching and learning strategies are suggested based on the findings of the study that provide useful and practical information to improve the competencies/skills of the EST teachers. Effective language teaching and learning can only be accomplished as teachers are aware of the needs of learners.

In the realm of English language teaching, ESP is widely regarded as the most significant development. Language is a kind of communication that combines the four skills of listening, speaking, reading, and writing into one. The CLT technique is critical for improving learners' communication abilities. In general, a language teacher or institution should provide instructional materials that are tailored to the specific topic areas of individual students' speaking needs for educational reasons.

Conclusion

It is evidently known that English is widely acknowledged as the most imperative language to acquire for the expanding global community, and it has also become the official language of commerce and science (Schütz, 2005). Most of the Engineering students are lacking communication skills so that they should be given special training of English language communication skills for their future achievement in education and career. This paper highlights that the importance of communication skills to the students of Science and Technology.

Furthermore, the students of science and technology wanted to carry out the language skills in the classroom and participate actively in the events like debates, group discussions, seminars, etc.; teaching of phonetics is necessary for students to learn correct pronunciation; and they should be equipped with latest technology and multi-media software. Thus, the EST teachers have to facilitate the EST students to enhance their Communicative Competency.

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