

THE IMPORTANCE OF A NEED-BASED ANALYSIS FOR THE TEACHING OF COMMUNICATION SKILLS FOR ENGINEERING STUDENTS

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ABSTRACT

The teaching of Communication Skills for engineering students is a significant concern to address and come up with a feasible solution. Engineering students require communication skills at various levels for many purposes. The current scenario suggests studying the need of the students and developing a need-based approach to the teaching of communication skills to perform academic activities. The motivation and attitudes of students and teachers towards English language teaching-learning also matter of worry. Students have the mindset that learning English communication is not an immediate need and English is not a core subject to practice or master. Hence, this approach discourages from creating the right environment to learn any language and develop their communication skills. Teachers also feel relegated to teach this subject which becomes tough for teachers to apply innovative approaches, methods or techniques to adopt and implement. In this view, considering the need of engineering students at an academic and professional level and customizing the syllabus or curriculum accordingly will bring teachers and students on the same page and help them to enhance the quality of teaching to fulfill their requirements.

KEYWORDS: Need Analysis, Approaches, Communication Skills, Motivation, and Attitude, Teaching-Learning Process

1. INTRODUCTION

The capability in English is significant for students of Engineering and other courses since it is the mechanism of guidance in every single higher scholastic and it is broadly utilized as the mode of correspondence in all workplaces across the globe. English is likewise the overwhelming language for universal business. This study highlights the importance of teaching and learning process more relatable and need-based. It also throws light on how poor communication skills teaching-learning affects engineering students at a professional level in the long run.

Exchange, global relations, the travel industry, science, mechanical research, and instruction. Engineering understudies need to utilize English to manage the endless talks directed in English, understand innumerable sentences and passages written in English in the engineering reading material and reference books, instructional exercises, undertakings and thesis papers. Scholarly achievement in this way is prevalently subject to English language capability of the understudies. Other than that the world is progressively turning into a little spot and openings for work are not simply restricted to India alone, in this way skill in English is significant for the engineering students in India, for their scholastic vocation as well as for their imminent expert career. With this foundation it is relevant to investigate the importance of need analysis for the teaching of communication skills of engineering students.

2. PURPOSE OF THE STUDY

The objective and needs of this study were to assess the English language needs of learners of engineering colleges in Maharashtra. The main purpose was to examine the current English syllabus of different engineering colleges of Maharashtra and to study how effectively they have been implemented at the classroom level. It also endeavored to explore soft skills & communication skills can be imbibed efficiently through the English language by engineering students for proper utilization by them in their professional career.

3. AREA OF PROBLEM

The engineering students require English language skills for numerous engineering purposes and English for Science and Technology (EST) approach has been introduced in some of the institutions. The medium of engineering education is English and hence all the students need to perform practical, write a journal or present reports regularly. On the one side, students who come from an urban area or cosmopolitan background or who have early exposure to the English language do well in their academics and they are competent enough to perform any task with basic communication skills. On the other side students who come from Semi-Urban, Rural or Regional School background find engineering content difficult to comprehend. These students lose their motivation not only to learn English but complete their engineering studies as well. This is just an overview of students at engineering colleges across the country. Policy Makers, Academicians, employers, Heads, Teachers of the English language and even students and their parents are well versed with situations that exist in their academic and professional life. The problem is that very few efforts are being taken on behalf of employers and teachers to empower their students with appropriate and basic communication skills. Students themselves understand the significance of English communication but they show some indifference due to a lack of a learning environment.

4. A NEED-BASED APPROACH IS A KEY FACTOR

An evaluation of students' language competence and need analysis are vital not only to improve their language skills but also to improve their overall personality. Once the language competency levels are assessed, it will become easier to formulate teaching methodologies suitable for different students coming from various branches in engineering. Needs analysis has long been considered of crucial importance not only in English for Specific Purposes (ESP), but also in general English courses. It is "the process of determining the needs for which a learner or group of learners requires a language and arranging the needs according to priorities" (Richards and Schmidt, 2010).

ESP Needs survey conducted by Venkatraman and Prema (2007) among the students of Bachelor of Technology (B.Tech) courses at SASTRA University, Thanjavur, India, on the language skills they required, hints that communication skills are among their topmost priorities. The researcher designed and implemented a questionnaire to understand their English language and communication needs. One more component of observation was to make Need Analysis know the satisfaction level of the learners. In this context, students of engineering and technology need a defined use of language skills for their involvement in academic and professional life. There is demand from the industry and it is raising concern

to understand the need for necessary basic communication skills among students of engineering. Therefore, English for Science and Technology (EST) courses in Engineering colleges should be modified to meet the requirements of the evolving curriculum and to face the real world outside there.

This is only possible when we adopt the method of need analysis and execute the curriculum accordingly. Each learner has different needs depending on educational, cultural, socio-economic, etc. background. All the learners who get admission to engineering colleges are not at the same level. The nature of the class is completely heterogeneous. There is a gap between learners' existed level and expectations or requirements from the industry to make learners employable. It is the responsibility of stakeholders in the engineering education sector to bridge this pertinent gap to device very cohesive modules for language enhancement of learners. These factors play an essential role in the teaching and learning process.

5. ENGLISH FOR SPECIFIC PURPOSES (ESP)

There is a clear urge for effective English communication skills for engineers in the current globalized scenario. To meet this challenge, English for Specific Purposes (ESP) will improve English language teaching and an engineering student's communication skills. The notion of ESP is more required in the teaching of engineering students as it helps to focus the learner's attention on the specific area and communication skills required in the academic and professional world.

Several instances in the context of engineering can be given to justify the necessity of ESP. It is a dismal picture of our education system that all stakeholders are on the same page to understand the needs and requirements of engineers but the ultimate result is not encouraging. ESP approach will be useful to solve the problem to some extent and it will help learners to become more employable with enrichment of their communication skills. If instructors are given proper training to execute the ESP in the curriculum for engineering students and execution happens with proper methodology then this action itself will prove the expected result.

6. PARTICIPANTS FOR THE STUDY

A total number of 50 participants were selected to be part of this study. More specifically, 10 students from 5 different engineering colleges in Maharashtra were taken for consideration. They were informed about the study and they participated in this study voluntarily and they responded genuinely. This study was conducted only on an experimental basis to have an overview of the learning needs and satisfaction level of the students.

7. PROCEDURE

Data was collected from classes and personal interviews of students were conducted from January to February 2020. The researcher observed some sessions in English classes. The total time allocated to classroom observation was 10 hours. During the observation, the researcher filled out the classroom checklist and took notes about other useful information. The researcher conducted personal interviews of around 50 students who understand their needs and expectations from English classes. Although the study was conducted with a small

population, the implication received from the study is very much directional for further research in a similar line.

8. CLASSROOM OBSERVATION

The classes at various engineering colleges in both Urban and Rural areas in Maharashtra were observed by the researcher. It has been observed that in English class, teachers use their mother tongue more than the English medium of instruction in rural or semi-urban areas. But this was not the case in urban areas. By observation, it is clear that students have different needs based on their locality and background. This is the gap we need to identify.

The skills that are required from the industry and the current skill level of learners; there is a huge gap as experienced and observed by the researcher. It has been observed that less emphasis is laid on the training part not only for communication or soft skills but also technical skills. India currently faces a severe shortage of well-trained, skilled workers. It is estimated that only 2.3 % of the workforce in India has undergone formal skill training as compared to 68% in the UK, 75% in Germany, 52% in the USA, 80% in Japan and 96% in South Korea. Large sections of the educated workforce have little or no job skills, making them largely unemployable. Therefore, India must focus on scaling up skill training efforts to meet the demands of employers and drive economic growth. (Reference: National Skill Development Mission a Framework for Implementation)

It is a matter of immediate attention for all stakeholders in the education sector that this gap has to be filled up by taking the right measures by improving the curriculum and looking at the needs of understudies. With this background, the classroom observation was made to understand the exact gap for further line of research.

All the activities such as having a conversation, asking for questions, performing activities group discussion, and presentation were in mixed language i.e. mother tongue and English. The teacher used all the teaching aides such as over-head projectors, handouts, videos, etc. The trainer was working on all the four basic communication skills. The main English difficulty experienced by the students was speaking and the use of appropriate or limited use of vocabulary. Although the teacher was trying to activate students for responses and speaking, most of the students were apprehensive about performing in the classroom. The medium of instruction in the second class was merely English. The teacher of this class was just working on students' assessment such as paper checking, assignment evaluations, etc. In this class, students were just writing some reports. In the third and fourth classes, the medium of instruction was almost Marathi. Even most of the teachers' instructions in both classes were in Marathi. Reading skill and vocabulary knowledge was the main focus of these classes. As a different task, students were required to read journal articles and present brief oral summaries. In practice, classroom observations indicated that speaking, listening, and academic writing activities are not taken seriously by students and some instructors. The attitudinal issue was at the centre point here that the majority of the students were laid off with these classes. When they were asked about their attitudes, they replied by saying the teaching and learning of the English language are not relatable here at this college and do not create interest and doesn't add any value to our career. In the process, we lose motivation to learn or master English language communication. By observing the classes and considering

the responses from students it is clear that need analysis in the alignment of the industry's requirement will play a crucial role in making teaching more relatable and learning interesting.

9. INTERVIEW WITH SELECTED ENGINEERING STUDENTS

The 10 students were volunteered to be interviewed. Seven students asserted that they needed all four English Basic Skills; reading, writing, speaking and listening. Among the other skills grammar, vocabulary, pronunciation as their need. The rest of the students put more emphasis on reading comprehension as the most important skill in their interview. They also mentioned that being proficient in grammar and vocabulary and finally reading skills can help them to progress their career. It also helps them to know the way of writing articles. All the students at engineering colleges who have been interviewed mentioned the following concerns about English language communication.

- Very limited vocabulary to express the information and knowledge they have.
- The major concern is grammatical errors while speaking and writing.
- How to organize ideas and present during presentations and writing reports.
- Feeling of apprehension while communicating with others because of a lack of self-confidence.
- Most of the students were under mother tongue influence.
- They were habitual with translation in their mind and then speak.
- Very less exposure to the English language hence facing difficulty to understand different accents.
- Having difficulty in formal writing communication.
- The students had some suggestions regarding general and technical English courses in their major. The most important ones almost common among all of them are listed below.
- Making general English courses more technical to prepare the background and foundation for the technical courses.
- More emphasis on technical vocabulary.
- Both general and technical courses with native speakers.
- Having a technical discussion with content professors in English.
- Extending the time and days of both general and technical courses.
- Having class activities in the four skills in an equal manner.
- Decreasing the number of students for better performance and output.
- Making virtual English learning compulsory.
- Watching more technical documents and discussing with content professors.
- Generally, having more emphasis on speaking and listening.

10. DISCUSSION

The findings of the study through the English needs analysis of Engineering students showed English is a paramount language for them to succeed in their academic and professional life. Moreover, findings obtained from classroom observation and interviews of engineering students revealed that they had parallel views regarding the significance of

English skills. In other words, Reading skills and speaking skills stand in the first and second place respectively. Listening, Writing, and stand in the third, fourth, respectively.

According to the results of the interview, both students and graduates asserted that reading skills were very essential for their studies and work. On the other hand, they found writing and speaking skills difficult. This finding can be supported by the observation in the classes and during interviews by the researcher. This indicates that students may be able to listen and read well. They have fewer problems in the receptive skills, but they are not competent enough to use the language for communication and speak for engineering purposes.

The results of the observation and interview also reinforced the need that engineering students in their ESP classes were facing trouble in productive skills, i.e. speaking and writing. However, this finding contradicted the results of two studies in which both asserted that 'speaking skill' is the second important skill on the part of students and graduates. In this study, it was shown that industry complains about their employees' insufficient communication skills while interacting with English speaking clients. He continues that graduates' poor writing skills have led to a wide revision and have caused administrative delays and loss of time. He further points out that graduates often face difficulty when communicating with English-speaking customers. In the same manner, the study on the Academic Achievements and Employability of Graduates revealed that English language skills have considerable effects on employability. Moreover, Feedback from domestic and international employers showed that communication skills in English are considered an important attribute in prospective employees. Communication and English language skills along with teamwork abilities were regarded as very important general professional competencies.

The present study highlights the importance of need analysis of the abilities of engineering students. Moreover, as an instructor or teacher, it is his/her responsibility to pay attention to learners' needs by applying proper need analysis methods then design the course accordingly. It is a vital aspect and exercise to be performed to enhance the communication abilities of engineering students. Teachers need to adopt a unique and innovative approach to design the course which will help to engineer students to learn communication skills. Attitudes and motivation of both students and teachers play a fundamental role in shaping their careers by developing soft skills or communication skills. This study suggests that we need to approach the multi-pronged approach to deal with issues and direct the efforts which are being put by the teachers and students. A detailed analysis of needs with the right attitude to maintain motivational level high will certainly bring about change in teaching methodologies.

11. CONCLUSION

To summarize, research findings indicate that other challenges have existed in different engineering colleges in India. This study tries to seek unconventional measures to overcome them. There are less qualified teachers to understand the nitty-gritty of teaching English as a subject or skill. The teachers should follow a particular teaching strategy which has to be more appropriate to meet the requirements of students. There is a possibility that learners often fail to fathom why they learn English Communication Skills. If the purpose is

clarified to them, their motivational level will increase to learn English with interest. It also shows that English for students in this modern world does not only remain as a subject or skills but also an aspect to improve the image of the learner in both the personal and professional arena. Learning proper English would give them a good grasp on the existing usage of technical language which would turn them into culturally informative and socially responsible engineers. The current study is similar to others from the standpoint of conducting NA to understand the existing gaps where the scope for further research is visible. But it differs from the studies cited above in certain aspects as mentioned below:

- The current research stresses the needs of learners from various perspectives like language skills; syllabus design, attitudinal and affective factors, and above all making English learning a positive learning experience and enjoying the entire process of teaching and learning English language communication.
- Various studies mostly focus on either academic needs or professional needs but this research explores both the needs not only from learners' viewpoints but also from the teachers' viewpoints.
- Additionally, this study tries to provide suggestive methods to deal with English language communication skills with the right approach.

There is no research conducted till now in engineering colleges of Maharashtra considering these factors. Therefore the current research can examine various aspects of a needs-based approach in the teaching and learning process of English for engineering purposes. Its results and implications will no doubt be of use to policymakers, teachers and also for students.

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