

COMMUNICATION SKILLS FOR ENGINEERING STUDENTS

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ABSTRACT

1. Communication is the activity of conveying information.

In the globalize context, students of Engineering and Technology need a specific set of language skills for their success in education and career. Industries are also voicing their concerns about the need for better communication skills among students of Engineering.

Communication has been derived from the Latin word "communis", meaning to share. Communication requires a sender, a message, and an intended recipient, although the receiver need not be present or aware of the sender's intent to communicate at the time of communication; thus communication can occur across vast distances in time and space. Communication requires that the communicating parties share an area of communicative commonality. The communication process is complete once the receiver has understood the message of the sender. Good communication skills are often needed to get a good job in the first place. If one is clear in expressing ones thoughts and articulating ones accomplishments and attributes, an interviewer is more likely to form a favorable impression and gain an understanding of one's skills.

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2. Introduction

Communication is the most important function of a human being performs in his/her life social life. Communication helps to build strong relationship and better understanding which are so vital in our personal and professional life. To be successful in any field one need to know and understand how to communicate effectively. In the era of LPG (Liberalization, Privatization and Globalization), good communication skills are the keys to unlock the doors of success. Professional having strong hold on communication skills is considered assets for any business organization. Such professionals set higher level of standards and add value to the organizational set- up. At present times besides technical Knowledge employers look for sound communication skills in an engineering graduate.

Thus, the professional profile of a modern qualified engineer should include command on communication skills. Earlier researches have revealed that graduate engineers do not have a very good command on communication skills and fail miserably to fulfill the basic requirements of modern day organizations.

1. Below average proficiency in English language.
2. Lack of exposure and low level of confidence.
3. Less emphasis on reading skills.
4. Scarcity of skillful trainers.
5. Casual attitude towards oral and written skills.

3. Role and Importance of English

English is considered as an international language as it is widely spoken language of the World. English as a language enjoys the status of Lingua Franca. “English has been widely accepted as the most widespread language in the world”[02] By the end of 20th century English began to emerge as a global language. English has a great acceptance at social, economical and political levels. English is cited as the ...major language of international business, diplomacy, science and professions”[03] The outlook behind the usage of English had been changing significantly. In our country middle class is also not keeping itself in isolation by neglecting the importance of English. In India after the economic reforms, there is a paradigm shift towards the learning of English language but it is sorry state to note that still there is a great dearth of engineering professionals who can have higher-level proficiency in communication skills.

4. Need of Communication Skills for Engineering Professionals

In the present scenario professional engineers certainly need effective and impressive communication skills. There is a great need to frame course materials and develop methods and strategies so to enhance LSRW (listening, Speaking, reading, Writing) skills of engineering graduates. By analyzing all these factors TOMSK Polytechnic University (TPU), TOMSK, Russia has developed and designed a course for engineers entitled as English for Specific Purpose (ESP) in engineering education. “The TPU’s ESP course is a part of an extended Multilevel Intensive Foreign Language training (MILFT) programme that has been designed for the students and the faculty of the TPU.”[04] The overall concept of ESP focuses the learner’s attention on the particular technology and communication skills required in the engineering profession.

5. Communication skills for following reasons:

1. To express and share their experience, knowledge, ideas and thoughts in an effective manner for the common benefit of the society.
2. To aspire a bright academic career growth.
3. To secure a higher level of position in the related jobs.
4. To attain timely promotion and other benefits at their working place.
5. To lead the team from the front.
6. To develop a very healthy working environment and interpersonal communication skills.
7. To harness a better understanding and harmony.
8. To pursue advance or higher level of studies.
9. To work in a globalized and multilingual culture.
10. To sharpen presentation, writing, negotiation, intrapersonal skills etc.

Skills that Counts

Mostly employers seek following skills in a budding engineering graduate as:

Presentation Communication Skills Categories

1. Communication skills (LSRW)
2. Team building skills.
3. Leadership skills.

4. Managerial skills.
5. Problem solving skills.
6. Decision making skills.
7. Presentation skills.
8. Analytical skills.
9. Negotiation skills.
10. Interpersonal and Intrapersonal communication skills.
11. Interview skills.
12. Delivery Tips
13. Executive Conversations
14. Global Communication
15. Involvement
16. Language
17. Large Group Presentations
18. Listening
19. Managing Conflict/Tough Questions
20. Sales
21. Speaking Style
22. Team Presentations
23. Technical Presentations
24. Video Conferences
25. Visual Aids
26. Writing

6. Developing Communication Skills

Communication skills can be developed by rigorous training programmes and lot of practice work. It requires persistent efforts. It is possible by applying various methods discussion in the classes, studying famous speeches, mastering the art of oral presentation and by active participation in presentations, seminars, workshops, conferences, group discussions etc.

Following measures may prove to be fruitful in the learning of communication skills at graduate level.

Throughout this process students of all levels of language proficiency gain practice in the use of the language necessary to carry on these negotiations -- practice that is more varied, purposeful, and directed to students' proficiency levels than group-paced worksheets, which are usually inappropriate for young children.

Many other rewards come with the cooperative learning environment. Discipline improves, freeing the teacher from the role of maintaining social control in favor of the role of consultant to individuals and small groups. Since what students like to do, i.e., talk, is put to productive use toward their academic achievement and language development, students spend more time on task.

6.1 Presentation skills

Presentation is considered an art. Now a days business organizations pay special heed on presentation skills. A recent research study observed that “engineering graduates are expected to give oral presentation as part of their work”⁵ Team work is considered as a main skill in industry. Presentation skills encourage oral communication of the engineering professionals and provide them a suitable platform to transform their information and knowledge. It also helps to develop confidence level and reduces hesitation. Group tasks and presentation enhance interpersonal skills.

6.2 Multimedia

Multimedia plays a very crucial role in making communication everlasting and impressive. In fact it adds beauty and meaning to the communication. Modern technology helps to move communication in a convenient and fast manner like the use of Internet.

6.3 Peer Exercises

Peer exercises help engineering graduates to think about the exercises more deeply, recognize others viewpoints and how to provide constructive criticism to peers.

6.4 Role Play Activities

Role-play activities help to build team spirit and students get the chance of learning by doing.

It can be done by assigning different types of roles like negotiators, buyers, sellers, and so on.

Role play is an integral part of personality development. Oral communication skills are required not just for internal matters but also for external matters. Role-play will encourage self-awareness while role reversal will contribute to the students understanding of empathy of knowing how the other side perceives engineers.

7. Class Room Activities:

Teachers should conduct multiple classroom activities for developing communication skills of the learners.

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Speaking Activity:

Grammar and word order -students have a fair command of basic sentence patterns. They avoid constructions which demand more control of grammar and word order. They also begin to over generalize, applying grammar rules they have learned in inappropriate places.

Debate is another way teachers can provide their students with the opportunity to practice their communication skills. Research suggests that debate encourages different types of responses, helps students to develop convincing arguments, and allows teachers and students to learn from one another. This also encourages students to back up what they believe and it allows teachers to get a good idea of what kind of conceptual knowledge students have about certain topics. Teachers can also organize mock interviews and group discussion to sharpen the communication skills of the learners.

8.3 Reading Activity:

Provide tips to the learners on library skills so that they can develop habit of reading. Suggest them informative and light reading stuff so that it can develop their thought process and can

provide scope to their imagination. Good reading stuff can be very handy in lifting the spirits and morale of the students and they can develop positive attitude towards life.

8.4 Writing Activity:

Conduct writing workshops on letter, report, resume, paper, poster, and project writing and provide remedial feedback to the learners

9. Conclusion

Adding social science subjects into engineering syllabus will promote both oral and written communication skills. Engineering exercises should also incorporate oral and written communication skills. Integration of LSRW skills within subject modules will definitely provide ample opportunities to the professional engineers. In some technical universities of our country communication skills as a subject is restricted upto I, II or III semester which does not provide enough scope to the engineering graduates to develop their communication skills. It should be incorporated throughout the engineering programme. Limited communication skills may impede professional growth. Therefore, communication skills programmes in engineering colleges should be revamped to suit the requirements of the evolving curriculum and the world of work outside college

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