

Responding to ELT Challenges with Innovation: A Case Study of English Language Classroom at Premier Technical Institutes

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Abstract

Every year, thousands of engineering students appear for IIT JEE, CET and other competitive exams to get admission in various Engineering institutes. Most of these entrance exams have been conducted in both English and Hindi languages. As a result, in these institutes, we have a large number of students who are very competent in Engineering subjects, but lack proficiency in Basic English. These students mostly belong to states like Rajasthan and Utter Pradesh where English is not a compulsory subject at the secondary level and they have been groomed and taught in vernacular languages¹. Hence, the students who are otherwise very good in the science subjects face language challenges and difficulties. This paper tries to analyze some of those language challenges faced by the premier institutes like IITs and how these institutes respond to these language challenges with innovations.

Key Words: Premier Technical Institutes, communication skills, employability skill

Introduction:

The British rulers set up engineering colleges in India to train Indians to become Public Works Engineers. They were supposed to do technical work behind stage and therefore didn't require any higher level of proficiency in English. Hence, the earlier engineering curriculum didn't give any emphasis on communication skills. With increasing globalization and internationalization, English has become the language of global business and the Indian companies are focusing on the language skills of candidates seeking employment.

India's higher education is the third largest in the world after the United States and China². Some institutions of India such as the Indian Institute of Technology, Indian Institute of Information Technology and National Institute of Technology are the most prestigious institutions for science and engineering and have been globally acclaimed for their standard of education and excellence of knowledge. Six Indian Institutes of Technology were listed among the top 20 science and technology schools in Asia by Asia week³. These IITs have provided

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¹ In the Central Board of Secondary Education-affiliated schools, English is compulsory for the first eight years. However, the Board does not offer English as a compulsory subject in classes 9 to 12; rather, students need to choose between English and Hindi. A Group of Secretaries on education has recommended to Prime Minister Narendra Modi that starting April this year, English should be taught in all secondary schools and English should be made "a compulsory subject in all schools from class 6th onwards" <http://indianexpress.com/article/education/make-english-must-in-all-schools-one-english-medium-school-per-block-panel-4474887/>

² India country summary of Higher Education' World Bank

³ 'Asia's Best Science and Technology Schools' <http://www-cgi.cnn.com/ASIANOW/asiaweek/features/universities2000/scitech/sci.overall.html>

world class engineers at the UG level and have created a glorious image of India globally. Having come through highly competitive and grueling examination with a success rate of 1-2%, broad based flexible curriculum, open evaluation system and some superb inspiring teachers, these IIT graduates are a match to the best in the world.

Despite the growth in international demand, the premier institutes of India are grappling with unemployment among its engineers. According to the National Association of Software and Services Companies (NASSCOM), only 25% of the graduate engineers are employable⁴. The increasing number of unemployed engineers in India has been attributed to their poor and limited communication skills. Hence the teaching of English in premier technical institutes has been under the scanner.

As per a media report released by the Economic Times dated August 5, 2016, in 2016, approximately 30 students had been expelled at IIT Kanpur (out of 3000 students), 12 at IIT Delhi (out of 850 students), six at IIT Kharagpur (out of over 1000 students and five at IIT Guwahati (out of over 600 students) in addition to the 10 expelled at IIT Roorkee (over 900 students) over non-performance issue⁵. Citing the reason for the poor and non performance of students, Neeraj Mishra, Dean Academic Affairs, IIT Kanpur says,

“Many students who are non-performers face trouble as most of their school education had been in Hindi medium. From class lecture to books at IITs, all are in English, and hence there is a gap in understanding”.

Realizing the imperative need of language courses which will improve the overall academic performance of students in other subjects, most IITs have offered a number of programs and special language courses to address the English language issues.

“We have done everything possible from giving them remedial classes, peer-assistance learning (PAL), mentoring by senior students, handholding sessions by faculty and even translation of lessons (from English to Hindi)” Pradipta Banerji, Director, IIT Roorkee, told Economic Times. Another important challenge for the teachers in these premier technical institutes is that these students come from diverse social, economic and cultural backgrounds and hence, do not have one uniform group with similar language needs and challenges.

“As more and more students from diverse backgrounds populate 21st century classrooms, and efforts mount to identify effective methods to teach these students, the need for pedagogical approaches that are culturally responsive intensifies.” *Gollnick & Chinn, 2002 p.21*

Literature Review:

The need for engineering students to acquire communication skills along with technical knowledge has been vehemently emphasized by educators and industry professionals alike. The Kothari Education Commission Report, 2001 recommends that “English being a language of international importance would play a vital role in higher education. No student should be considered as qualified for a degree unless he has acquired a reasonable proficiency in English.” Adams and Missingham (2006) emphasized the need for improved communicative competence in engineering graduates. Riemer (2002) claims that a graduate engineer must be able to present

⁴ The AICTE chief states that NASSCOM had taken database of candidates coming for the interviews in 500 IT companies and arrived at these conclusions

<http://economictimes.indiatimes.com/jobs/only-25-it-graduates-readily-employable-nasscom/articleshow/7894300.cms>

<http://www.careerindia.com/news/2012/11/28/nasscom-only-25percent-graduate-in-india-are-employable-003361.html>

⁵ The media news was released on August 5, 2016. “Most of them come from Hindi medium schools and face a problem in understanding the lectures”, said Dean IIT Delhi.

<http://economictimes.indiatimes.com/industry/services/education/how-english-is-playing-a-spoilsport-for-students-at-engineering-institutes-like-the-iit/articleshow/53549766.cms>

his knowledge with an excellent standard of communication skills along with engineering knowledge and technical expertise. According to Najjar (2001), “communicative competence, including teamwork and professional writing skills for example, the ability to research, write and format basic research reports as well as develop formal oral presentation skills is important to prepare students for both academic success and the workplace.” In the introductory chapter to *Technical writing and Professional Communication for non-native speakers of English*, Huckin and Olsen (1991) state, “Scientists and engineers may be technically brilliant and creative, but unless they can convince co-workers, clients and supervisors of their growth, their technical skills will be unnoticed, unappreciated and unused. In a word, if technical people cannot communicate to others what they are doing and why it is important, it is they and their excellent technical skills that will be superfluous. From his perspective, communication skills are not just handy; they are critical tools for success, even survival, in real world’s environment”.

As per the report of Aspiring Minds (AMCAT), a recruiting and HR training firm “43 percent of engineers cannot write correct English and lack accuracy in English grammar”. The report says that 25-25 percent of engineers are unable to comprehend effectively written and spoken discourses in English which include day-to-day conversations, academic lectures and texts.

Methodology and Data:

This paper is based on both primary and secondary data. Primary data is related to my first hand teaching experience in one of the premier institutes of Indian Institute of Technology. In addition to that, as an English Language Instructor, I have more than 8 years of experience in CALL, and have worked with various language softwares which were used in the Language Laboratory of this premier technical institute. The data of Language Proficiency Test (LPT) has been taken from there. Moreover, the details of the language courses, course structure, and other records have been taken from the website of these premier technical institutes like IITs, and media reports released in famous newspapers.

The structure of the paper is as follows. Based on the changes, challenges and innovation, this paper is divided into two phases.

Phase 1: Remedial English (- 2009)

Phase 11: Communication Skills (2009 – present)

For both the phases, the discussion will focus on the following points:

- Course Structure
- Assessment & Evaluation Methods
- Language Laboratory
- Challenges

Phase 1:

Course Structure:

Every year, each of these IITs has an intake of more than 800 students who enroll in various technical degree courses such as Civil Engineering, Mechanical Engineering, Electronics and Communication, Computer Science etc. In the first phase, the language courses were not mandatory for all the students. Only those students who were found less proficient with language needs were enrolled in the language courses such as Remedial English, English I01 and Preparatory courses.

Assessment & Evaluation Methods:

To filter the students with language needs out of 850, a manual assessment was done by the course coordinator and the language instructors. A questionnaire was prepared with 50 objective

and subjective type questions on basic and elementary grammar and a few questions on reading and writing skills such as comprehension passage, paragraph and précis were also included. Answer keys were provided for quick evaluation and results. A fix marks criterion was followed and the students who scored less than that or failed were enrolled in the language courses.

Language Laboratory:

Researchers believe that Computer Assisted Language Learning (CALL) is beneficial both for the slow learner and the advanced students as it promotes independence and encourages working at one's own pace. "Students think materials are new and fresh if they are presented on the computers and they are often interested in routine tasks such as learning to type. They seem to be willing to spend more hours and do more exercises on a computer than by hand". 2. Almost all the premier technical institutes have the language laboratory. The language software companies like GOLS, Clarity, Liqvid, Linguaphone etc. mention these IITs as their client. As per the records given at the sites of these software companies, IIT Bombay has been using the language software 'Tell Me More' by GOLS and IIT Delhi has been a client of GOLS, Clarity, Liqvid and Linguaphone. In the 1st phase, only those students were filtered and screened who failed the language test. Since these students needed basic and elementary English first, a 25 user license was purchased from Clarity for the following language softwares:

1. Sky Pronunciation (for spoken English)
2. Crossword Challenge (Vocabulary)
3. Study Skills Success (LSRW)
4. Author Plus (Grammar)

Challenges:

The biggest challenge faced by the students in this phase was 'stigmatization'. Identifying some students and labeling them as 'less proficient' on the basis of a language test and putting them in 'special remedial courses' led to stigmatization. The same language courses which were meant to help the students became demotivating and discouraging for them.

Innovations:

To meet the increasing language needs of the students and resolve the challenges like 'stigmatization', the Institutes responded with innovations which were implemented in Phase II.

Phase II:

Course Structure:

To overcome the problem of 'stigmatization', the English course has been made mandatory now for all the students in the premier technical institutes. Hence, the old remedial English courses have been revamped and new courses like Communication Skills, Technical Communication (HUN 100, NLN 100) have been introduced.

Assessment & Evaluation Methods:

E- assessment: To meet the individual and specific needs of students, less proficient and proficient, Language Proficiency Test has been conducted through the method of E-assessment. A questionnaire with 90 multiple objective type questions was prepared and a computerized language test was taken in groups of 25 students each. The questions were prepared for both basic and advanced level and were based on various topics such as vocabulary, spotting error, grammar, inference, discourse particle etc. The computer would pick 25 questions randomly for each batch and 25 minutes were given to complete the test. For questions related to listening comprehension, two videos recorded in the voice of language instructors were played. To avoid stigmatization, the test results were not shared with the students. Based on their performance and score in the language proficiency test, mixed groups were formed with (i) high & medium (ii) medium & low. The data and details of the e-assessment test have been given below:

E-assessment score in July 2013:

Level	Scored response %	Frequency [n=830]
Excellent	Above 90	22
High	Between 80 -90	249
Medium	Between 56-80	409
Average	Between 41-55	66
Low	Below 40	84

Table-1

E-assessment score in July 2014:

Level	Scored response %	Frequency [n=830]
Excellent	Above 90	nil
High	Between 80 -90	nil
Medium	Between 56-80	415
Average	Between 41-55	331
Low	Below 40	82

Table-2

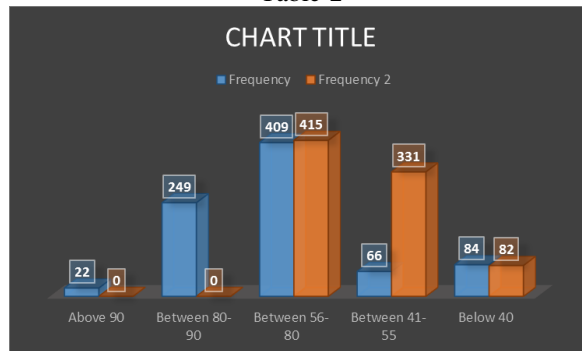


Chart-1: Comparative chart of Frequency

A comparative analysis of the language proficiency test for both the years 2013 and 2014, given as frequency 1 and 2.

The data reveals the following results:

- There is no improvement in the number of students who fail or secure below 40
- On the other hand, the number of students who secured 80% and above has drastically come to zero.

However, the major concern of IITs is towards the below 40% category who face the language challenges.

- Language Laboratory:

Interactive Online and Offline Software: Old language softwares like study skills success, crossword challenges were not challenging for the high and medium group of students. Moreover, a need was felt for interactive language softwares which can complement all the

language skills of LSRW. Hence, both online and offline software, 'Tell Me More' by GOLDS and 'English Edge' by Liqvid, were made available which the students could access in the language laboratory and hostels also with their registered user id. In place of 25 users license, 50 user license was purchased with Touch Screen systems.



Pic-1: Students working in the Lab

Challenges:

Human Resources:

The technical institutes are primarily known for science and technical courses where language, literature and other humanities courses carry less value. In addition to that, the regular faculty does not give much value and importance to these language courses. Hence, it is irrelevant here to mention any grand academic activities like national conference, seminar or workshops for the professional growth and intellectual inputs. Moreover, it is very discouraging to know that these premier technical institutes like IITs do not have any regular teaching faculty for English Language courses. Instructors are hired on contract basis for a period of 1 year up to a maximum of 3 years.

Given the scope and magnitude, ELT at technical institutes needs permanent professional and regular faculty. Two three English Language Instructor that too on contract basis cannot meet the ever increasing diverse language needs.

Course Duration:

Given the educational background and proficiency level of students, is one semester or one year course is sufficient for students?

With these changes, challenges and innovations, we are looking forward to the next phase of ELT in these technical institutes. IITs give great emphasis and importance to academic feedback from the students, and work for regular improvement in teaching quality. In this regard, a need for a separate Language Cell has been felt which will be treated as an independent academic unit.

Conclusion and Further Direction:

Given the scope and magnitude in terms of the increasing number of students with language needs, poor academic performance and unemployability that too in the context of premier technical institutes like IITs, there is an urgent need to both revise and devise our methods, materials, resources and technology.

Keeping in mind the social, economic and cultural diversity of the students in these institutes, there is a need for a curriculum that recognizes and celebrates diversity and engages all students in intellectually challenging learning experiences. It involves a range of teaching pedagogies to meet different language needs at different levels.

The evaluation policy should be based on all inclusive approach that should encourage learning, and not pass and fail.

The course curriculum should include employability skills such as group discussion, personality development, communication skills etc.

Use of mother tongue should be allowed as initial assistance.

Most of the institutes have old and outdated language softwares and still pursue theoretical teaching. The language softwares should be interactive and complement all the language skills (LSRW). There are several need based language software for grammar, pronunciation, vocabulary, technical writing etc.

Realizing the need of the hour, the Modi government has also taken bold and innovative steps in the form of new language policies for the technical institutes. The Prime Minister, Narendra Modi says, “Youth will learn functional English and inter-personal communication etc so that they are well-prepared to work at a modern workplace as per industry requirements.”

As per the Economic Times report, Narendra Modi government plans to make soft skills part of technical syllabus. Concerned about the quality of engineering students graduating every year, the government is proposing an exit test for the engineering students to determine their employability. The proposed test is the result of the feedback the government has received about skewed standards of the country’s engineering education, says the Hindustan Times Report.

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