

## **A STUDY OF COMMUNICATIVE LANGUAGE TEACHING NEEDS OF ENGINEERING STUDENTS IN THE SOUTH WESTERN REGION OF PUNJAB (INDIA)**

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### **ABSTRACT**

The present paper is an attempt to comprehend the basic needs and beliefs of engineering students regarding communicative language teaching. The researchers have attempted to pin point these needs and beliefs in order to bridge the gaps existing in CLT scenario in India. The study is also an attempt to locate the probable appropriate solutions for improving the proficiency level of these professionals. To fulfill the objectives, the researchers administered a questionnaire on 95 respondents studying in engineering institutions of south western region of Punjab (India). Descriptive analysis and the inferences drawn from the data collected indicated that these students are highly in need of having effective courses in Communication and shown a favor for CLT. They have displayed a great interest in learning this foreign language, thereby increasing their proficiency levels.

**KEYWORDS:** CLT (Communicative Language Teaching), NA (Need Analysis), LSRW (Listening, Speaking, Reading Writing)

### **INTRODUCTION**

In view of the fact that engineering students have significantly varying communicative skills, because they hail from different educational backgrounds, it becomes extremely important to judge their present needs and beliefs regarding communicative language teaching. Since the students of engineering require excellent communicative skills in their academic and professional pursuits, they need to be trained in self expression; be able to develop an ability to comprehend English language, be able to have enhanced vocabulary levels, develop correct grammatical ability and also be able to proficiently correspond with others. The dearth of sufficient language proficiency levels in English forms the basis of the present study. A majority of students studying in engineering institutions witness a number of complex issues at the level of learning and teaching English. The universities governing these institutions have prescribed CLT courses to help these students develop abilities to make use of English language effectively in all spheres of life- be it personal, social or professional. "To improve students' abilities to use English in real contexts, CLT has been adopted in the settings of EFL colleges." (Littlewoods, 2007) But the implementation has to grapple with many problems at the practical grounds. "However the theories and practices of CLT have faced various challenges in many EFL contexts". (Anderson1993, Ellis1996, Li 1998, Liao 2000, Yu 2001, Takanashi 2004) With the lack of adequate language competency in English, a majority of students find it hard to cope with the English medium engineering study. So in order to prune these students in the direction of having sufficient skills, it becomes imperative that they have satisfactory level of communicative competence. "Communicative competence refers to the knowledge of language usage for a range of different purposes and functions, knowing how to vary the use of language as per the settings and participants, knowing how to produce and

understand different types of texts and knowing how to maintain communication despite having limitations in one's language knowledge" (Richard, 2006)

The students of engineering require English as an essential key in engineering education since all the study material including their books, journals and papers etc. are extensively written in English. So it becomes imperative that they have satisfactory level of competence to be able to keep pace with the latest advancements in the field of technology and thereby can participate in the fast paced era of globalization. In this context, (Pritchard & Nasr, 2004) says that "English is of particular importance for engineering and science students because it is the principle international language of science and is looked upon as an effective means for enabling those students to become familiar with professional texts written in English". The review of literature in the field of engineering studies enlightens us about the supreme significance of English language in engineering. (Pendergrass et.al, 2001) states in this context that integrating English into engineering, science and math courses is an effective way to improve the performance of engineering students in oral and written communication" In recent times the students of engineering who study English are encouraged to improve communicative competence and their ability to use English effectively in various contexts. (Larsen Freeman, 2000) speaks in this regard, "CLT advocates teaching practices that develop communicative competence in authentic contexts". CLT is an approach that focuses to develop communicative competence but its practical implementation displays its conflict with actual learning. And to locate the underlying reasons for the gap between theory and practice is to conduct a need analysis of these students. The need analysis would aim to gather facts about the needs, opinions, and beliefs of these learners towards CLT.

## NEED ANALYSIS

Need Analysis is the process of gathering the information about their needs with regard to language from learners. (Richard & Rodgers, 1986) says that "Needs analysis is concerned with identifying general and specific language needs that can be addressed in developing goals, objectives and content in language program". Thus the learner's needs are the prime foundation in any language learning or teaching process. (Hutchinson & Waters, 1987) says "It is imperative to carry out need analysis to determine the specific reasons for learning language" It basically refers to locating the language needs of the learners and identifying their language requirements within various academic and professional settings. Needs Analysis is the use of surveys to identify both general and specific problems experienced by a target group, usually by comparing what exists with what would be preferred, and potential solutions to those problems. (Lawrence et al, 1991) Thus the aim of the present study is to illustrate and investigate the nature of language learning needs from the perceptions of 95 Indian engineering students and learners of English.

## RESEARCH PROBLEM

The exploration of the needs will surely throw a better light on the issue of communicative needs and hopefully facilitate a better program for the skills to be developed amongst these students. This study intends to conduct English language needs assessment of engineering students with a focus on deriving certain conclusions with regard to methodology and their course design.

## QUESTIONNAIRE

The quantitative data collected for the present study was taken from 95 respondents in the natural environment of classroom in the engineering institutions located in south western region of Punjab (India). The objective of the

questionnaire was to conduct the pilot study to find out the consistent and reliable results in order to identify the academic and professional needs during their language learning tenure. The similar study would later be applied comprehensively on a bigger sample of engineering students covering the whole state of Punjab and will then be compared with the local study. The present questionnaire was designed keeping in view the needs of engineering students, arisen in front of the researcher during her teaching experience in engineering institutions for 14 years. The content validity to examine the precision and appropriateness of the questionnaire was examined by faculty who had experience in teaching in engineering institutions and also had research expertise of administering questionnaires for research purpose. The questionnaire had a total of 15 items. Likert Scale was used to collect the information ranging from strongly agree to strongly disagree. These items were intended to assess the student's academic and professional needs towards English and their beliefs regarding their present scenario of teaching and learning English. The group data was analyzed by using the descriptive measures for means and percentages. These 15 items were accompanied by other demographic details like their present semester, branch, native place, etc.

## **PARTICIPANTS**

The participants of the study were 95 students studying in different streams of engineering in the institutes located in the south western region of Punjab. These participants were chosen randomly on the basis of their availability. These engineering students (53 males+ 42 females) were in the age from 17 to 23 years with the mean age of 20 years. Maximum respondents belonged to villages and cities in the south western districts of Punjab state namely Faridkot (26), Muksar (27), Fazilka (9), Ferozepur (11), Bathinda (1), Malout (1), Jagraon (1), Moga(1). There were few students from other states namely Bihar (13), Uttar Pradesh (3), Rajasthan (1). There was one student from the neighboring country Nepal also. These students get admission into these institutions after passing the Joint Entrance Exam (JEE) & All India Engineering Entrance Examination (AIEEE) or they admit through direct admissions in a particular institution. The respondents selected represented 06 branches of engineering. Automobile Engineering (10), Computer Science & Engineering (53), Electronics and Communication Engineering (16), Electrical Engineering (9), Mechanical Engineering (4) Information Technology (2), Civil Engineering (1). The sample of participants included the students from 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup> and 7<sup>th</sup> semester. Out of the total of 95 respondents the maximum number of students were from 1<sup>st</sup> semester (37/95) i.e. 38.9% followed by 3<sup>rd</sup> semester (33/95) i.e. 34.7%, 5<sup>th</sup> semester 17/95 i.e. 17.8% and 7<sup>th</sup> semester 8/95 i.e. 8.4% respectively. Out of 95 four of them had appeared in IELTS and scored average of 5.5 bands. One student had taken test of IOEL International Olympiad of English language and scored 57%. The average number of years they have been learning and studying the subject of English is 14 years. None of them have ever studied or visited any English speaking country. 62/95 respondents have done their senior secondary from Punjab School Education Board (PSEB), 10/95 students have done it from Central Board of Secondary Education (CBSE), 7/95 have done diploma instead of senior secondary after matriculation from Punjab State Board of Technical Education (PSBTE), 11/95 have done senior secondary from Bihar State Education Board (BSEB), 1 from Rajasthan Board, 2 from UP Board, 1 from Gujarat Board, and 1 from HSEB Board Nepal.

## **RELIABILITY OF INSTRUMENT**

The internal reliability score for the questionnaire was computed by Cronbach's alpha coefficient. The internal reliability measure of the questionnaire turned out to be .73 given in Table 1.

**Table 1: Reliability Statistics**

<b>Cronbach's Alpha</b>	<b>Cronbach's Alpha Based on Standardized Items</b>	<b>N of Items</b>
0.739	0.779	15

It can be very well established that the Cronbach's alpha values of all the items is in the range of .73 and above. George and Mallory (2003) provide the following rules of thumb “ $\alpha > .9$  – Excellent,  $\alpha > .8$  – Good,  $\alpha > .7$  – Acceptable,  $\alpha > .6$  – Questionable,  $\alpha > .5$  – Poor, and  $\alpha < .5$  – Unacceptable”. So the internal reliability of the present study confirms to the accepted level of reliability.

### **LIMITATIONS OF THE STUDY**

Since the study was a pilot study and was conducted in the south western engineering institutes of Punjab (India) and the sample size was confined to 95 students only. So the overview from the findings cannot be generalized to other educational contexts and should be handled with caution. As Cohen et al (2007) suggests, a sample size of thirty is said to be the minimum number for any research if the researcher wants to use statistical analysis. But it is still recommend that researchers use more number of samples to make their data more reliable. Even though the minimum sample size suggested by many researchers is thirty subjects the results might reflect the attitude of only the subjects who participated in this study

### **FINDINGS AND DISCUSSIONS**

The responses of participants regarding their academic needs during language learning are given below in Table 2 which are analyzed and discussed. The data collected from these samples was quantitative data and it was analyzed in terms of mean and internal reliability with the help of SPSS (Statistical Package for Social Sciences). The major focus of the questionnaire was on the needs regarding the continuity of communicative lab for all the four years, the need for the feedback of teacher, the need for individual attention, need for more English language training classes, need for student centered practices in the curriculum, need for flexibility of options in practical work, and opportunities to meet the experts from industry. Not just the needs were questioned but their beliefs regarding their present English teaching and learning scenario were also identified through this study. The scale ranged from 5 to 1 with 5 being “Strongly Agree” and 1 being “Strongly Disagree”. The closer the mean is to the value of 5, the higher the need is to improve on the grounds of teaching and learning. Amongst the fifteen statements, the statement with highest mean was I want to speak fluent English like natives ( $M=4.66$ ) and the lowest mean was ( $M=3.55$ ), our teacher conducted practice drills through various audio visual aids. This statement indicated the lowest mean among the fifteen statements. The major gaps recognized from these statements are discussed here.

**Statement 1.** Need for extending the time period of six months allotted for the subject of communication skills prescribed by the university.

Data from the respondents show that the students completely agree with this statement that a period of six months is insufficient for improving their communication skills. The total of 95 respondents either agree or strongly agree (100%) with the statement because a period of mere six months is not sufficient to orient them efficiently with this area. They need constructive feedback, effective facilitation and a proper provision for learning resources and enough time to participate in team activities, role plays, oral tests, tasks and assignments to become proficient in this language and this definitely needs

time.

**Statement 2.** Need for language lab sessions to continue throughout the four years.

This statement investigated the need for the continuation of language lab throughout the four years in engineering. The data shows that the students understand the benefit of practical class and are highly in favor of taking the practical classes of communication in all the semesters. Around 96% students wish the language lab to continue in every semester.

**Statement 3.** Need for individual attention by the teacher and a chance to perform in the lab.

This statement reveals that students seek individual attention of the teacher and a chance to perform in the language lab. This shows that they have a lack of practice in spoken English and feel that language lab can be an effective platform for sufficient practice in spoken skills in English.

**Statement 4.** Need for detailed and individual feedback.

This statement explored the need for individual feedback and around 98% students are in complete favor of detailed feedback. This is because they feel that they can improve to a great extent if their individual feedback is provided to them by their teacher.

**Statement 5.** Need of fluency in English like natives of English.

This statement shows the extreme extent of their interest in becoming fluent speakers like natives of English. This statement indicated the highest mean of 4.66 which shows that students sincerely wish to improve their fluency level in spoken English because they understand the importance of learning this international language in this advanced era of globalization.

**Statement 6.** Need for securing a good job and status in society.

The respondents display an interest in learning this language because they feel that learning this language can fetch them a respectable position in the society and a reputable job.

**Statement 7.** Need to attend more English language training courses.

The data reveals that 90% of respondents are in favor of attending extra English training classes other than their academic courses in English in order to improve their proficiency level.

**Statement 8.** Need for better career opportunities and going abroad.

92% of the total students agree with the statement because the majority of students aim to go abroad for better career opportunities and they are very well aware of the fact that English is the prime requirement for moving to other countries.

**Statement 9.** Need of passing the English exam as it is a mandatory course of curriculum.

This statement recorded 100% agreement by the students because examinations form an important part of Indian education system. So the stress is laid upon passing the examination more than having a thorough knowledge of the subject.

**Statement 10.** I improved my confidence and spoken English after attending the Communicative English labs. 95% respondents agree that they gained lot of confidence and improved their spoken English by attending these lab classes.

**Statement 11.** Student centered practices like group discussions, role plays, presentations, small projects and mock interviews drills should form a mandatory part of syllabus. 95.8% students strongly recommend that mock drills involving students in life like situations, should become a compulsory part of curriculum as such activities provide them with a platform to develop the leadership skills and proficiency in language.

**Statement 12.** It will help me enhance my personality. This statement revealed that a majority of students are conscious about their persona enhancement and they feel that the knowledge of English can earn them a status in society.

**Statement 13.** Our teacher conducted practice drills through various audio visual aids. This statement indicated the lowest mean of 3.55 which shows the ground reality of these engineering institutes. Despite of communication lab forming a mandatory part of the syllabus prescribed by the university the teachers were not thoroughly successful in conducting the lab work. Only 68% students agree that their teachers conducted the lab work and practice sessions.

**Statement 14.** We need to be given flexibility of options in our lab practical. The students responded to this statement with an agreement and feel that there should be learner autonomy so that each learner may focus on his individual needs and requirements regarding the subject.

**Statement 15.** We need to be given opportunities to meet the experts from industry. Since the engineering students are bound to work in industry, they have shown their inclination to interact with the corporate experts to learn about their workplace culture and communication. 96% respondents have shown their agreement with this statement and their agreement states the consciousness about this need is quite high.

**Table 2: Students Needs and Beliefs towards CLT in Terms of Frequency and Percentage**

Items	SA+A		U		D+ SD	
	F	P	F	P	F	P
1. Only one semester is not enough to help me improve my communication skills.	35+60= 95	36.8+63.2= 100%	-	-	-	-
2. Communication lab should continue for all the four years in engineering.	44+47= 91	46.3 + 49.5= 95.8%	1	1.1%	3	3.2%
3. The teacher should give me individual attention and a chance to perform in the lab.	38+53= 91	40.0+55.8=95.8%	1	1.1%	3	3.2%
4. The teacher should give detailed and individual feedback so that I may improve.	39+54= 93	41.1+56.8=97.9%	1	1.1%	1	1.1%
5. I want to speak fluent English like natives of English.	28+65= 93	29.5+68.4=97.9%	2	2.1%	-	-
6. I want to learn it because it is a passport to a good job and status in society.	31+54= 85	32.6+56.8=89.4%	2	2.1%	1+7=8	1.1+7.4= 8.5%
7. I would like to attend more English language training courses which would help me raise my proficiency level.	40+46= 86	42.1+48.4=90.5%	5	5.3%	1+3=4	1.1+3.2= 4.3%
8. My command over English will help me to go abroad for better career opportunities.	38+50= 88	40.0+52.6=92.6%	3	3.2%	1+3=4	1.1+3.2= 4.3%
9. I want to pass the English exam as it is a mandatory course of my curriculum.	35+60= 95	63.2+36.8=100%	-	-	-	-

10. I improved my confidence and spoken English after attending the Communicative English labs.	44+47= 91	46.3+49.5=95.8%	2	2.1%	2	2.1%
11. Student centered practices like group discussions, role plays, presentations, small projects, mock interviews drills should form a mandatory part of syllabus.	42+49= 91	44.2+51.6=95.8%	1	1.1%	1+2=3	3.2%
12. It will help me enhance my personality.	41+53= 94	43.2+55.7=99.0%	1	1.1%	-	-
13. Our teacher conducted practice drills through various audio visual aids.	10+55= 65	10.5+57.9=68.4%	12	12.6%	4+14= 18	4.2+14.7=18.9%
14. We need to be given flexibility of options in our lab practical.	26+60= 86	27.4+63.2=90.6%	1	1.1%	8	8.4%
15. We need to be given opportunities to meet the experts from industry.	55+37= 92	57.9+38.9=96.8%	2	2.1%	1	1.1%

## CONCLUSIONS

Findings from this study indicate that the existing pattern of communicative English curriculum does not completely fulfill the objectives of the course. One of the major goals of this course is to enable the students to have effective skills of communication in their real life situations. But the data reveals that these objectives are not completely justified and the needs assessed through this study should be dealt right away in order to raise the standards of communicative language teaching thereby constructively transforming the CLT scenario in engineering institutions in this region of Punjab. Following conclusions and recommendation have been drawn from the findings of this study.

- The course of communicative English prescribed by the university in the first year of engineering aims to prune the LSRW skills of students. The curriculum is of functional approach consisting of comprehension, vocabulary, grammar, essay writing, letter writing, report writing etc and the lab curriculum consists of practical's focusing on speaking, listening, reading etc. In view of the fact that list of lab practical's is not clearly specified by the university, the teachers in various engineering institutions plan and conduct the practical's autonomously as per their own understanding of the subject. So it becomes imperative that university should clearly indicate the list of experiments so that the teachers have a vivid picture of what exactly is to be conducted in the labs.
- This course is prescribed only in the first year of engineering, and the data collected reveals that the course should continue throughout, so that the students may get ample time and effective platform to participate in mock drills in order to attain the objectives of the course.
- The demographic data of the respondents show that the majority of students belong to the rural areas of the south western region of Punjab and almost 65% of students have their background from state boards of education. This rural belt of the state witness great scarcity at the level of imparting quality education in English because there is a dearth of reputed international and convent schools. So mostly the students have to acquire their basic schooling from Government run model schools where they have very little practice in spoken English and they grow hesitant to this language. Even though they have shown an inclination towards learning English for going abroad but only 4.21% have appeared International English Language Testing System Exam, which clearly indicates that they are

not aware and lack exposure to the basic direction to be followed if needed to go abroad. So the governing authorities should establish special training centers in order to guide and polish these engineering students as per the requirements of industry of national and international standards. Moreover there should be uniformity in curriculum, at least of English subject in all the state boards and central boards, so that the student studying in any geographical location of the country would at least study the same subject content.

- The results indicate that the teachers should be well trained in the direction to impart detailed feedback and individual attention to their students. They should be skilled in generating constructive knowledge of the subject and select the appropriate course plan and study material fulfilling the needs of the students. The classroom teaching environment should shift the focus from traditional lecture oriented methodology to student centered practices and the teacher should just act as a facilitator. “The teachers should learn to be facilitators, not instructors and help learners take responsibility for their own learning.” (Larsen and Freeman, 2000) The requirement for individual attention is precisely focused by these students in their response because the majority of students are unable to acquire accurate supervision and sufficient response of their teacher with regard to their performance and errors.
- The needs of students should be assessed as per their individual requirements before they commence their course in communicative English. Since each student may vary in context of their competency level, educational background, personality type, past experiences, exposure to language, learning ability and so on. Their needs should be analyzed, using different questionnaires focusing on different areas of improvement. The various needs to suit the individual requirements, identified through this study are need for fluency in spoken English, need for status in society, need for reputable job, need for increased proficiency level in English, need for better career opportunities, need for improving confidence in spoken English, need for enhancing personality, need to pass the English exam. Accordingly the changes should be made in the curriculum to suit the individual requirements and they should be given flexibility of options in lab work also as per their needs. This change would surely motivate the students to achieve the objectives of the course.
- To impart excellent communicative skills to the learners, English classes should be student centered and activity based. Practices like group discussions, role plays, power point presentations, small projects, mock interviews drills, declamation, debate, impromptu, poster making, technical quiz, competitions can be planned and arranged in order to suit the various learning needs of the students. “Group activities can be conducted with a variety of practice exercises in selected areas of grammar, vocabulary, reading and writing.”( Tickoo,2003)
- The student’s inclination towards meeting the experts from the industry originates from the need to orient them with the work culture of industry. They can acquire direct experience of industry and its customs before entering the industry as an employee. So the interaction with the experts of industry and management leaders is necessary to enable them to become effective communicators and administrators.

In a way the present study has paved a way to evaluate that these engineering students are highly in need of effective communicative competence in English. They not only require these skills for language learning but also to deal with the real life situations demanding language competency in their professional and personal interactions. Thus the present study explored the ways to accomplish the basic objectives of CLT in engineering institutes of this region. And the

present study certainly suggests the possible directions for potential studies. Since the participants in the study are from only the south western zone of the state the results cannot be comprehensively compared to other contexts. Keeping in view the increasing needs and requirements of engineering students, other researchers can carry out more effective long term studies covering the engineering students from other zones also and do effective need analysis in order to locate more issues related to communicative language teaching. Indeed, there is a need for a continuous appraisal structure in order to result in development of a better English teaching and learning scenario so that the system gets reinforced with the passage of time.

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