ATTITUDE OF ENGINEERING COLLEGE ENGLISH LECTURERS TOWARDS TECHNICAL ENGLISH WITH COMMUNICATION SKILLS LABORATORY IN ENGINEERING CURRICULUM AND THE BARRIERS IN IMPLEMENTATION

SYNOPSIS

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SYNOPSIS

1. INTRODUCTION

   English has become the predominant language for communication. For engineering students whose mother tongue is not English, mastering English is more important not only for their academic life but also for their prospective career. Today’s engineer has to communicate with more number of his / her counterparts across the globe and has to travel to many continents and work away from their home country. But their language proficiency is not enough for them to be able to communicate effectively and efficiently. The engineers produced by the universities/ colleges suffer largely due to lack of communicative skills to study in the world class institutions or work in global atmosphere. To overcome this, the Anna University, Chennai has introduced, “English Language Communication Lab”, which develops student’s communication skills. It provides platform for learning, practicing and producing language skills through interactive lessons.

2. RATIONALE FOR THE STUDY

   As an engineering student’s success in the on-campus recruitment is mainly based on their demonstration of communication skills, the urgent need to improve technical students’ communication skills has been emphasized by educationists as well as
employers. According to NASSCOM (National Association of Software and Services Company) president Karnik, only 25 percent of technical graduates from India are suitable for employment in the outsourcing industry because of their lack of abilities to speak or write well in English. (Karnik, 2007 as cited in P’Rayan 2008:1).

The English language courses taught at the engineering level in India have been mostly knowledge based. Only very recently, universities and colleges have introduced skill based courses with focus on communication skills. But efforts taken in this direction are not adequate. As a result, the graduates produced by the universities/colleges suffer largely due to lack of communication skills to study in the world-class institutions or work in global atmosphere. So there arises a need for English language courses with emphasis on communication skills.

In this context, the Engineering English course taught in engineering colleges affiliated to the Anna University in Tamil Nadu, India, is expected to play a vital role in improving students’ communication skills and preparing them to the workplace or making them “industry ready”. Thus, the Anna University, Chennai has been trying to address the national problem of the lack of communicative skills by introducing certain new elements in the curriculum, necessary modifications in the teaching methodology and testing and evaluation system. Having realized the potential of Computer Assisted Language Learning (CALL), the Anna University has instructed all its affiliated engineering colleges to set up language laboratories. But many colleges do not seem to have exploited the potential of CALL. The Anna University introduced a course entitled “Communication Skills Lab” (HS210, HS610) for second and sixth semester engineering
and technology students. The course has two components: Language Lab & Career Lab. The students have computer-assisted activities 2 hours a week for a period of 15 weeks.

In India, 75% of the students are from rural areas and they are coming through regional language medium schools. Hence, based on their background, the educationists have to design the syllabus and adopt methods to test their English language proficiency. Therefore, it is necessary to go for a detailed discussion as to whether the existing curriculum is fulfilling the need of the hour and suitable to the students in achieving their goals, and the present methods of testing the proficiency of the students are suitable. (MJAL, vol: 1:1, February 2009, 1:1, “Teaching English as a second language in India” – a review by Murali M.)

The industry has moved forward rapidly and technology also has changed but the educational institutions and the curriculum have not changed that much rapidly. So, the gap has to be bridged by providing additional training to the people who are coming out of colleges so that they are ‘industry-ready.’ Those educational institutions which impart employability skills in their students are successful in getting most of their students placed in top companies. So, it is the need of the hour to think carefully how best ELCS Lab can be integrated into English language classes in order to exploit its potential to transform students’ experience in English language learning.

The role of teaching faculty is pivotal, as the success of communication Lab integration with Technical English depends upon the positive attitude of teachers rather than upon infrastructure. English lecturers will ultimately determine whether the course (Technical English- II with English Communication Skills Lab) is used to enhance the learning process. Hence it is necessary to find out their attitudes towards the technical
English also. It’s only when teachers feel that they have a firm grasp of the new innovative method of learning, it can become a tool for change. Hence, the present study is conducted to find the attitude of engineering college lecturers towards Technical English with English Communication Skills Lab. Quite a large number of studies have been conducted on Engineering English. But, as far as the studies reviewed by the researcher are concerned, no study has been undertaken so deeply to analyze the attitude of English lecturers towards Communication Lab. Besides, the area of the south districts is hardly touched. In order to fill the gap identified and mentioned above the investigator attempts to analyze the attitude of English lecturers of engineering colleges towards Technical English with communication lab in engineering curriculum.

3. STATEMENT OF THE PROBLEM

The present study is entitled as “Attitude of Engineering College English Lecturers towards Technical English with Communication Skills Laboratory in Engineering Curriculum and the Barriers in Implementation.”

3.a. Operational Definitions of the key terms

3.a.(i). Attitude: Attitude has been defined in a number of ways. As far as this study is concerned, “Attitude” refers to the beliefs, ideas, opinions, likes or dislikes, with or against and intentions towards the course “Technical English with English Communication Skills Laboratory in engineering curriculum”

3.a.(ii). Engineering College English Lecturers: Teachers who handle Technical English II and Communication Skills Lab for B.E/B.Tech course are refered to as Engineering College English Lecturers in this study. As per the AICTE norms,
M.A.M.Phil in English with minimum 55% marks is the prescribed educational qualification for engineering college English lecturers.

3.a.(iii). **Technical English with Communication Skills Laboratory:** Theory paper of engineering English course is named as ‘Technical English’. ‘Communication Skills Laboratory’ is a compulsory practical course for B. E / B. Tech students studying in colleges affiliated to the Anna University, Tamil Nadu. This was introduced in November 2006. This course comprises of two papers namely ‘Language Skill Lab-(HS210)’ for second semester and ‘Cumulative Skills Lab-(HS610)’ for sixth semester. The lab training is given with the assistance of net worked computers and specially designed software. Listening comprehension, reading comprehension, vocabulary and speaking tests are conducted in ‘Language Skill Lab’ whereas resume/report writing and presentation, group discussion and interview skills are developed in ‘career lab’. 40% of the total marks (100) in final examination is given for the English language lab practice and the rest of the 60% is given for the career lab practice.

3.a.(iv). **Barriers in implementation:** As far as this study is concerned, ‘Barriers in implementation’ refers to ‘Obstacles’ which block the way or prevent to carry out or put into effect of technical English with English communication laboratory in engineering curriculum.

4. **OBJECTIVES OF THE STUDY**

1. To find out the level of attitude of engineering college English lecturers towards Technical English with Communication Laboratory.
2. To find out the level of attitude of engineering college English lecturers towards Technical English with Communication Laboratory in different dimensions such as
   i. Psychological level  iii. Administrative level
   ii. Academic level     iv. Utility level

3. a. To find out the barriers faced by engineering college English lecturers in implementing Technical English with Communication Laboratory in Engineering Curriculum.

   b. To find out the level of barriers faced by engineering college English lecturers in implementing Technical English with Communication Laboratory in Engineering Curriculum.

4. a. To find out the significant difference, if any, between male and female engineering college English lecturers in their attitude towards Technical English with Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.

   b. To find out the significant difference, if any, between rural and urban engineering college English lecturers in their attitude towards Technical English with Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.

   c. To find out the significant difference, if any, between government and self-financed engineering college English lecturers in their attitude towards Technical
English with Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.

d. To find out the significant difference, if any, between the engineering college English lecturers with prescribed and more than prescribed educational qualification in their attitude towards Technical English with Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.

e. To find out the significant difference, if any, among the engineering college English lecturers having teaching experience of 3 years, below 3 years and above 3 years in their attitude towards Technical English with Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.

5. a. To find out the significant difference, if any, between male and female engineering college English lecturers in the barriers faced by them in implementing Technical English with Communication Laboratory.

b. To find out the significant difference, if any, between rural and urban engineering college English lecturers in the barriers faced by them in implementing Technical English with Communication Laboratory.

c. To find out the significant difference, if any, between government and self-financed engineering college English lecturers in the barriers faced by them in implementing Technical English with Communication Laboratory.
d. To find out the significant difference, if any, between the barriers faced by the engineering college English lecturers with prescribed and more than prescribed educational qualification in implementing Technical English with Communication Laboratory.

e. To find out the significant difference, if any, among the engineering college English lecturers having teaching experience of 3 years, below 3 years and above 3 years in the barriers faced by them in implementing Technical English with Communication Laboratory.

6. To find out the significant correlation, if any, between the attitude of engineering college English lecturers towards Technical English with Communication Laboratory and barriers faced in implementation.

7. To find out the significant correlation, if any, between the different dimension of attitude of engineering college English lecturers towards Technical English with Communication Laboratory and barriers faced in implementation.

8. To find out the significant factor with positive loading if any, of the variables namely psychological, academic, administrative, utility level, attitude towards communication lab and barriers.

5. HYPOTHESES OF THE STUDY

1. The attitude of engineering college English lecturers towards Technical English with Communication Laboratory is moderate.
2. The attitude of engineering college English lecturers towards Technical English with Communication Laboratory with respect to the following dimensions is moderate.
   
   i. Psychological level                      iii. Administrative level
   
   ii. Academic level                        iv. Utility level

3. a. The barriers faced by engineering college English lecturers in implementing Technical English with Communication Laboratory in Engineering Curriculum are moderate.
   
   b. The level of barriers faced by engineering college English lecturers in implementing Technical English with Communication Laboratory in Engineering Curriculum is moderate.

4. a. There is no significant difference between male and female engineering college English lecturers in their attitude towards Technical English with Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.
   
   b. There is no significant difference between the attitude of rural and urban engineering college English lecturers towards Technical English with Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.
   
   c. There is no significant difference between the attitude of government and self financed engineering college English lecturers towards Technical English with
Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.

d. There is no significant difference between the attitude of engineering college English lecturers with prescribed and more than prescribed educational qualification towards Technical English with Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.

e. There is no significant difference among the attitude of engineering college English lecturers having teaching experience of 3 years, below 3 years and above 3 years towards Technical English with Communication Laboratory, in total and in different dimensions such as psychological, academic, administrative and utility level.

5. a. There is no significant difference between male and female engineering college English lecturers in the barriers faced by them in implementing Technical English with Communication Laboratory.

b. There is no significant difference between rural and urban engineering college English lecturers in the barriers faced by them in implementing Technical English with Communication Laboratory.

c. There is no significant difference between government and self financed engineering college English lecturers in the barriers faced by them in implementing Technical English with Communication Laboratory.
d. There is no significant difference between the barriers faced by the engineering college English lecturers with prescribed and more than prescribed educational qualification in implementing Technical English with Communication Laboratory.

e. There is no significant difference among the engineering college English lecturers having teaching experience of 3 years, below 3 years and above 3 years in the barriers faced by them in implementing Technical English with Communication Laboratory.

6. There is no significant positive correlation between the attitude of engineering college English lecturers towards Technical English with Communication Laboratory and barriers in implementation.

7. There are no significant positive correlations, between the different dimensions of attitude of engineering college English lecturers towards Technical English with Communication Laboratory and barriers in implementation.

8. There is no significant factor with positive loading of the variables namely psychological, academic, administrative, utility level, attitude towards communication lab and barriers.

6. RESEARCH PARADIGM IN BRIEF

6.a. Methodology: The investigator has adopted survey method.
6.b. **Background variables** : The investigator has selected five background variables for the present study. They are gender, locale, type of college, teaching experience and educational qualification.

6.c. **Population and sample** : English Lecturers working in Engineering Colleges form the population for this study. Among the population, the investigator selected 300 English lecturers from 57 engineering colleges of four districts namely Thoothukudi, Tirunelveli, Kanyakumari, and Virudhunagar for this study. Multi stage random sampling technique was adopted by the investigator.

6.d. **Tools used for the study** : The tools for the present study were constructed and validated by the investigator along with S.Rasul Mohaideen, guide of this research.

1. “Attitude towards Technical English with Communication Skills Laboratory Scale.”

2. “Barriers of Technical English with Communication Skills Laboratory inventory.”

6.e. **Statistical techniques applied** : The following statistical techniques were used for the analysis of the data to draw meaningful generalization.

   (i) Percentage analysis        (ii) t– test        (iii) F – Test
   (iv) Correlation              (v) Factor analysis

6.f. **Delimitations of the study**

- The study is restricted with limited sample and variables.
- The Attitude Scale doesn’t include all the dimensions.
- The Barriers Inventory doesn’t include all the barriers.
7. FINDINGS OF THE STUDY

1. The attitude of Engineering College English lecturers towards Technical English with Communication Skills Laboratory in engineering curriculum is moderate. (73%)

2. The attitude of Engineering College English lecturers towards Technical English with Communication Skills Laboratory is moderate in the following dimensions.

(i) Psychological - 76.00%  (iii) Administrative - 76.00%

(ii) Academic - 72.33%  (iv) Utility level - 74.66%

3. a. It is found from the present study that above 90% of the engineering college English lecturers could not implement the Technical English with Communication Laboratory in engineering curriculum due to lack of facilities which are essential for developing communication skills like T.V, LCD, CDS, DVD, internet and listening components, lack of spoken English environment outside the lab, lack of curiosity in learning phonetics and stress pattern, Examination oriented Teaching, Using sub-standard software and language proficiency is not a Criterion for selecting students.

70 to 89% of the engineering college English lecturers could not implement the Technical English with Communication Laboratory in engineering curriculum due to inadequate supply of computers, lack of technical skill among the English teachers, students’ inability in reading materials on the computer screen, lack of previous knowledge about this new technology, unawareness of the current trends of ELT, lack of preference given to English, inability of faculty members in
conversing about technical topics while testing speaking skill, lack of supportive Head as well as colleagues and Setting up of ELC Lab is very expensive.

50 to 69% of the engineering college English lecturers could not implement the Technical English with Communication Laboratory in engineering curriculum due to absence of periodical internal assessment test, influence of mother tongue, insufficient time duration, fear in handling Computers and technical setting, inability of English lecturers to play different roles (teacher, soft skill trainer), and lack of willingness to attend workshops.

b. It is found from the study that 55 percent (N=165) of the sample are facing medium level of barriers in implementing Technical English with communication laboratory. 18.66 percent (N=56) and 26.33 percent (N=79) are facing low and high levels of barriers in implementing Technical English with communication laboratory respectively.

4.a. Significant difference is not found between male and female Engineering College English lecturers towards Technical English with Communication Skills Laboratory, in their attitude in total and in different dimensions such as psychological, academic, administrative and utility level.

b. Significant difference is not found between rural and urban Engineering College English lecturers towards Technical English with Communication Skills Laboratory, in their attitude in total and in different dimensions such as psychological, academic, administrative and utility level.
c. Significant difference is not found between Government and self financed Engineering College English lecturers towards Technical English with Communication Skills Laboratory, in their attitude in total and in different dimensions such as psychological, academic, administrative and utility level.

d. Significant difference is not found between prescribed and more than prescribed qualified Engineering College English lecturers towards Technical English with Communication Skills Laboratory, in their attitude in total and in different dimensions such as psychological, academic, administrative and utility level.

e. Significant difference is not found among the Engineering College English lecturers having teaching experience of 3 years, below 3 years and above 3 years towards Technical English with Communication Skills Laboratory, in their attitude in total and in different dimensions such as psychological, academic and administrative and utility level.

5. a. It is inferred that the male English lecturers are facing the barriers such as lack of curiosity in learning phonetics and stress pattern, inability in reading materials on the computer screen, lack of special training for English Lecturers, influence of mother tongue, lack of previous knowledge about this new technology, fear in handling Computers and technical setting, inadequate supply of computers, lack of TV, LCD, CDs, DVD and Internet, using sub-standard software, and insufficient time duration more than their counterpart in implementing Technical English with Communication Laboratory in engineering curriculum.
The female English lecturers are facing the barriers such as lack of preference given to English, no periodical Internal assessment test, unawareness of the current trends of ELT, inability of English lecturers to play different roles (teacher, soft skill trainer), examination oriented Teaching, inability of faculty members in conversing about technical topics while testing speaking skill, lack of well-equipped lab with listening components, setting up of ELC Lab is very expensive, lack of technical skill among the English teachers, lack of willingness to attend workshops, lack of supportive Head as well as colleagues, language proficiency is not a Criterion for selecting students and lack of spoken English environment outside the lab more than their counterpart in implementing Technical English with Communication Laboratory in engineering curriculum.

It is found that the male English lecturers are facing more barriers than female lecturers in implementing Technical English with Communication Laboratory.

b. It is inferred that the rural engineering college English lecturers are facing the barriers such as no periodical internal assessment test, lack of well-equipped lab with listening components, influence of mother tongue, lack of technical skill among the English teachers, lack of technical skill among the English teachers, insufficient time duration, language proficiency is not a Criterion for selecting students more than their counterpart in implementing Technical English with Communication Laboratory in engineering curriculum.

The urban engineering college English lecturers are facing the barriers such as lack of curiosity in learning phonetics and stress pattern, lack of preference given
to English, inability in reading materials on the computer screen, lack of special training for English Lecturers, unawareness of the current trends of ELT, inability of English lecturers to play different roles (teacher, soft skill trainer), lack of previous knowledge about this new technology, examination oriented Teaching, fear in handling Computers and technical setting, inability of faculty members in conversing about technical topics while testing speaking skill, inadequate supply of computers, setting up of ELC Lab is very expensive, lack of TV, LCD, CDs, DVD and Internet, using sub-standard software, lack of willingness to attend workshops, lack of supportive Head as well as colleagues and lack of spoken English environment outside the lab more than their counterpart in implementing Technical English with Communication Laboratory in engineering curriculum.

It is found that the urban engineering college English lecturers are facing more barriers than rural engineering college English lecturers in implementing Technical English with Communication Laboratory in engineering curriculum.

c. It is inferred that the government engineering college English lecturers are facing the barriers such as lack of preference given to English, inability in reading materials on the computer screen, no periodical internal assessment test, unawareness of the current trends of ELT, inability of English lecturers to play different roles (teacher, soft skill trainer, etc.) lack of previous knowledge about this new technology, examination oriented Teaching, inability of faculty members in conversing about technical topics while testing speaking skill, lack of well-equipped lab with listening components, setting up of ELC lab is very expensive, lack of TV, LCD, CDs, DVD and Internet, using sub-standard software, lack of
technical skill among the English teachers and lack of spoken English environment outside the lab more than their counterpart in implementing Technical English with Communication Laboratory in engineering curriculum.

The self financed engineering college English lecturers are facing the barriers such as lack of curiosity in learning phonetics and stress pattern, lack of special training for English Lecturers, influence of mother tongue, fear in handling Computers and technical setting, inadequate supply of computers, insufficient time duration, lack of willingness to attend workshops, lack of supportive Head as well as colleagues and language proficiency is not a Criterion for selecting students more than their counterpart in implementing Technical English with Communication Laboratory in engineering curriculum.

It is found that the government engineering college English lecturers are facing more barriers than self-financed engineering college English lecturers in implementing Technical English with Communication Laboratory in engineering curriculum.

d. It is inferred that the English lecturers with prescribed educational qualification are facing barriers such as no periodical internal assessment test, lack of special training for English Lecturers, fear in handling Computers and technical setting, setting up of ELC Lab is very expensive and insufficient time duration more than their counterpart in implementing Technical English with Communication Laboratory in engineering curriculum.
Engineering college English lecturers with more than prescribed educational qualification are facing barriers such as lack of curiosity in learning phonetics and stress pattern, lack of preference given to English, inability in reading materials on the computer screen, unawareness of the current trends of ELT, influence of mother tongue, inability of English lecturers to play different roles (teacher, soft skill trainer), lack of previous knowledge about this new technology, examination oriented Teaching, inability of faculty members in conversing about technical topics while testing speaking skill, inadequate supply of computers, lack of well-equipped lab with listening components, lack of TV, LCD, CDs, DVD and Internet, using sub-standard software, lack of technical skill among the English teachers, lack of willingness to attend workshops, lack of supportive Head as well as colleagues, language proficiency is not a Criterion for selecting students and lack of spoken English environment outside the lab more than their counterpart in implementing Technical English with Communication Laboratory in engineering curriculum.

It is found that the Engineering college English lecturers with more than prescribed educational qualification are facing more barriers than the Engineering college English lecturers with prescribed educational qualification in implementing Technical English with Communication Laboratory in engineering curriculum.

e. It is inferred that the engineering college English lecturers with 3 years teaching experience are facing the barriers such as lack of preference given to English, no periodical internal assessment test, unawareness of the current trends of ELT,
examination oriented teaching, inability of faculty members in conversing about technical topics while testing speaking skill, inadequate supply of computers, language proficiency is not a criterion for selecting students and lack of supportive head as well as colleagues more than the engineering college English lecturers with ‘below 3 years’ and ‘above 3 years’ teaching experience in implementing Technical English with Communication Laboratory in engineering curriculum.

Engineering college English lecturers with ‘below 3 years’ teaching experience are facing the barriers such as lack of special training for English Lecturers, lack of previous knowledge about this new technology, fear in handling computers and technical setting, lack of technical skill among the English teachers, insufficient time duration and lack of willingness to attend workshops, more than the engineering college English lecturers with ‘ 3 years’ and ‘above 3 years’ teaching experience in implementing Technical English with Communication Laboratory in engineering curriculum.

Engineering college English lecturers with ‘above 3 years’ teaching experience are facing the barriers such as lack of curiosity in learning phonetics and stress pattern, inability in reading materials on the computer screen, influence of mother tongue, inability of English lecturers to play different roles (teacher, soft skill trainer etc), lack of well-equipped lab with listening components, setting up of ELC Lab is very expensive, lack of TV, LCD, CDs, DVD and Internet, using sub-standard software and lack of spoken English environment outside the lab, more than the engineering college English lecturers with ‘ 3 years’ and ‘below 3 years’
teaching experience in implementing Technical English with Communication Laboratory in engineering curriculum.

It is found that the significant difference does not exist among the barriers faced by the engineering college English lecturers having 3 years, below 3 years and above 3 years of teaching experience in implementing Technical English with Communication Laboratory.

6. Significant correlation is not found between the attitude of engineering college English lecturers towards technical English with communication laboratory and barriers.

7. Significant correlation is not found between the different dimensions of attitude of engineering college English lecturers towards technical English with communication laboratory and barriers in implementation.

8. There is significant factor with loading of the variables namely ‘Psychological’, ‘Academic’, ‘Administrative’, ‘Utility’, ‘Attitude towards communication lab’ and ‘Barriers’. The factor for the study has been identified as **Psycademic Admin Attitude**.

8. CONCLUSION

The objectives, hypotheses, methodology in brief and the findings are discussed in this synopsis. The review of related literature, methodology in detail, detailed data analysis, interpretation of findings with the speculative reasons, recommendations as the
educational implications, suggestions for further study, etc. will be given in the final form of the thesis.

This thesis will be presented in five chapters such as 1. Conceptual Framework, 2. Review of Related Literature, 3. Methodology, 4. Analysis and Interpretation of Data and 5. Summary and Recommendations which will be followed by the ‘Bibliography’ and ‘Appendix’.