

ENGLISH FOR ENGINEERING STUDENTS: A LEARNER CENTERED APPROACH

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ABSTRACT

In the present global scenario, the need of English Communication skills is given much importance for the employment in the Industries. Learner-centered approach is concentrated on each individual needs. This paper emphasizes on the importance of Communicative Language Learning and creates the learner-centered environment among the engineering students. LSRW skills in English Language Communication Skills focus the needs and demands of technical advancement of the engineering students for their education and employability. In the larger field of English for Specific Purposes (ESP) has a subcategory, namely, English for Science and Technology (EST) which have been very important for the institutions of engineering and Technology. Teachers should be aware of their learners' needs, capabilities, potentials to achieve effective language teaching and learning. Teachers of engineering colleges who teaches English should acquire some competencies and get trained in latest Teaching-Learning Strategies. Learning through techniques involving learners have to be facilitated through a learner-centered approach. Teachers of Technical English need to be competent, confident and flexible in their approach to teaching English. An opportunity to use grammar and vocabulary appropriately ought to be taught to the learners in order that they may use the words and also relate grammar instruction to real life situations for more effective communication.

KEYWORDS: *Learner-Centered Approach, Technical Vocabulary, Need Analysis, CLT Approach, EST, EAP, ESP, and LCE*

INTRODUCTION

In the emerging corporate culture, it is imperative and mandatory to make use of the English language as a common medium to capitalize on the academic, corporate and business world at large. The word 'Communication' has a wide variety of meanings –interchange of thought, communication has become an important factor in the growth and development of an individual especially with regard to the job market. 'Excellent Communication Skills' is a criterion that employers stress upon all positions. Technical institutes, especially engineering colleges keep on talking a lot about soft skills and dwell upon the need to improve the communication. But often we find that many students graduating from institutes are unable to meet the standards and expectations of the industry, not only as far as technical abilities are concerned, but also with regard to their communication skills. English plays a vital role as the main means of communication in the engineering field and it has finally gained a huge advantage over other languages. For promoting English speaking skills to the students, a favorable communicative environment is to be provided to stimulate the interest for interacting in their target language, and to initiate multiple opportunities for the students to practice. However, much emphasis were put on explaining linguistic facts, and few interactive activities in the traditional teaching approach,

resulted in inadequate training of students' speaking competence. The learner-centered teaching and learning process is aimed at examining process on the engineering students' improvement, attitudes, and retention in English for Specific Purposes. Each student's individual needs are focused on Learner-centered education. For every student, the learner-centered model is to be provided for an individualized, flexible learning environment. In learner centered approach, learners are persuaded to engross themselves in their own learning development in a classroom setting or in other words termed as Learner Centered Education or LCE. It is to encourage learners to actively use the target language. The teachers' roles are to focus on motivating the learners to boost their levels of interest in the English language.

OBJECTIVES

- To encourage the engineering students to be autonomous learners.
- To inculcate the integrated language skills and improve students' ability
- To motivate their interest to talk by using pair work or group work.
- To instigate them opportunities to develop their critical thinking

NECESSITY OF LEARNER-CENTERED TEACHING

In this competitive world, individual learning atmosphere provides the students to improve communication skills for their survival and employability. Second language teaching researchers and teachers should adopt an important strategy of Learner-centered teaching method which motivates the student to make a choice and plan what to learn according to their interest. Globalization brings new change and challenge on education, with inter-disciplinary talents of high standard which are required to meet the need of world market.

REVIEW OF LITERATURE

ESP is a kind of ELT (English Language Teaching) (Pauline C. Robinson 1989) and it is defined as: "Goal oriented language learning". ESP has a specific goal to be achieved (Robinson, Pauline C. ed. Hywel Coleman, 1989, p 398). It is stated that "learners know specifically why they are learning a language" (Hutchinson and Waters, 1992, p 6) which has a great advantage on both sides of the process. The target group of ESP learners is being motivated to achieve the same goal in the field of studying branch and enables the teacher to meet learners' needs and their expectations. Learner and the way of acquiring language are the main factors in the whole process. ESP is an approach, not product where language learning is to be highlighted, not the language use. They emphasize to draw the attention to a 'learning centered approach' where the learners' decision is to give the reason to learn the content and method (Hutchinson and Waters, 1992, p 19). ESP is defined to meet specific needs of the learner. It makes use of the underlying methodology and it serves discipline activities. ESP is focused on the language (grammar, lexis), skills, discourse and genres appropriate to these activities (Dudley-Evans and St. John 1997).

It is argued that the language used in the different academic, vocational, and professional fields has become very precise (Douglas 2000). It means that communicative functions in those fields have become specific in terminologies of syntax, semantics, phonology, morphology, vocabulary, and discourse becomes a scope for anyone who is outside those fields. It seems that the language used is like an impenetrable mystery.

Communicative competence, the term which is to be used in language teaching contexts to refer to the ability of conveying the meaning that successfully combine a knowledge of linguistic and sociolinguistic rules in communicative interactions (Savinton, 1983: 123).

Gibbs (1992) defines “Learner-centered learning gives the learners greater autonomy and influence over their choice of subject matter and learning techniques of study. The learner-centered education emphasizes in the notion that focus on the individual learner's heredity, experiences, perspectives, background, talents, interests, capabilities and needs”. It emphasizes on the best available knowledge about learning and how it transpires the teaching process that are effective in promoting learner motivation of highest degree.

English for engineering is a sub category in the field of English for Specific Purposes in which it shares some basic characteristics with the larger field of ESP. It focuses on the purposeful and utilitarian learning of English. The communicative needs of the learners should be considered important while course designing. For academic or professional purposes both the oral and written discourse of English is considered. It deals with learners of English at the tertiary level as a service role for their specific needs to study, work or research.

LEARNER-CENTREDNESS AS AN APPROACH TO TEACHING

The learner-centered approach has an impact that learners can learn better when they know their specific needs and goals. Hence, the model for language curriculum development shifts should be emphasized in doing course of study. There should be a negotiation between teachers and learners in the planning, implementation and evaluation of language courses to what is specifically done by language teachers in their classes (Nunan, 1988). For selecting course content and teaching methodologies, Students' needs and learning styles have to be analyzed and used. In every stage of teaching and learning, evaluation would be an ongoing process. Self-assessment is as important as assessment by teachers. The two important components of the learner-centered classroom are in the hands of the students placing more responsibility to manage their own learning and teachers as facilitators taking roles to help learners to learn. Learner autonomy can be fostered by teachers in creating and maintaining a learning environment. They can administer more communicative tasks through which students develop their language and learning skills to be autonomous learners. Therefore a negotiation between teachers and learners for a language program to develop is not an all-or-nothing process (Nunan and Lamb, 1996). Teachers have to be familiar with a variety of teaching methodologies, learning materials, and be flexible and adaptable to develop a successful learner-centered curriculum that provides a wide range of student needs (Tudor, 1996).

METHODS

This study comprises of 180 BE students of an engineering college affiliated to Anna University. The students were from regional medium. The research methods of data collection were used with the both qualitative and quantitative approaches through the descriptive data collected from the Questionnaires, Interviews and Classroom Observations. The research findings are discussed. The questionnaire comprising of 30 Questions was distributed to the students after the session to know their attitude, exposure, scope and results of Learner Centered Approach. In each department classes, group discussions were held for the same questionnaire posing the reasons for their option selected orally.

FINDINGS

Questionnaire Based on Need Analysis Reveal that Students of Engineering Recognized English as

- It is a skill-oriented one with its importance given to its basic language skills and sub-skills and prioritizes as: Listening, Speaking, professional Speaking, Grammar, Reading, and Professional Writing.
- The Faculty members of English in Engineering Colleges should require special set of competencies rather than the General English teachers.
- The EST Teachers must be the facilitators, who are expertise in knowing the strategies of modern class room teaching.
- The teachers should inculcate a lot of activities in the classroom and motivating them to be active participants.
- Technology and Multi-media software should be used to teach Phonetics for correct pronunciation.

Questionnaire Indicates that

- 70% of the engineering students feel comfortable with technical subject taught in English, but 85% of the students show inhibitions to use English for preparing a technical discussion and presentation.
- Most of the students find it difficult in special grammar items used in teaching nominal compounds, conditional structures and impersonal passives etc.
- They are in need to practice scientific reading and have to learn the scientific vocabulary.
- A good learning atmosphere should be created for the students to practice the English language skills.

Interpretation of the Interview

Shows as 90 % to 95 % of the engineering college teachers ought to be trained and acquire a special set of Competencies / Skills:

General Competencies such as

- In teaching the correct use of linguistic features
- They should be able to design the curriculum
- Use of the communicative learner-centered approach
- Knowledge about the use of language laboratory, etc.

Subject-Specific Competencies

- **Listening Skills:** To give more practice for Listening and taking notes, helping them to listen to short and long conversations, to make them understand the structure of the conversations.
- **Speaking Skills:** Incorporate task-based activities such as - describing /explaining /defining /Role Plays etc.
- **Reading Skills:** To make them to cultivate a habit of reading Scientific and technical texts, insist them to go about Skimming and Scanning for specific details, Predicting and inferring the meaning and also on critical reading etc.

- **Writing Skills:** To motivate them to write definitions of technical terms, paragraph writing, narration, Essay writing, Process Descriptions, comparison and contrast, cause and effect etc.
- **Professional Speaking Skills:** To encourage and provide opportunities for professional presentation skills, mock interviews, seminars and group discussions etc.
- **Professional Writing Skills:** To teach how to write Business letters, Technical reports, project reports and proposals etc.
- **Special Grammar Items in Technical English:** To give importance for specific grammar items such as, Use of modal auxiliaries in technical English, Conditionals, and connectives in technical communication.

DISCUSSIONS AND RECOMMENDED STRATEGIES

From the fact of the need analysis, Questionnaire to Students to teach English Language Communication Skills focus on LSRW skills should be given due importance in order to meet the needs and demands of technical advancement to be placed in the job market. ESP (English for Specific Purposes) programs or course should be inculcated to assist the engineering students to perform employability-related communication tasks such as, conversation skills where listening and speaking skills should be more specific than reading skills, and writing skills. For engineers reading and the writing tasks for the work requirements will be one of the four kinds such as: informational, report, procedural and visual/figure tasks. Advanced English learning environment should be provided for the engineering graduates so that they would improve their knowledge in understanding technical vocabulary, emphasizing technical advantages, demonstrating technical functions and applications and teach them explaining how technology works. Teachers should be aware of the students' needs, caliber, potentials in meeting their needs and they should also acquire a special set of competencies in the Teaching-Learning Strategies. Even the technical faculty members should motivate and contribute proportionately for the benefit of the students who can acquire good technical education for their bright future. The students should be trained through various strategies.

English for Academic Purposes

EOP (English for occupational purposes) and EAP (English for Academic purposes) are the branches of English for Specific Purposes. Students rely on their teachers to explore to the expectations and requirements particularly to the target language environment. Engineering students should be given practice with classroom based activities such as: Group Discussion, oral presentation skills, academic writing, understanding lectures, academic reading, note-taking and note-making skills, and vocabulary, Speaking skills focused on speech and pronunciation.

Communicative Language Teaching / Learning: A Learner Centered Approach

It is CLT approach which plays an important role in enhancing the learners' to improve communication skills. Nunan (1988: 179) stated that it is an offspring of communicative language learning where learners requires to participate and discuss actively in meaningful interaction in order to understand and interpret to construct the meaning by themselves (Breen & Candlin, 1980). A learner-centered approach assists the learners to learn through different techniques involving them to work in pairs or in groups. English language teachers of Engineering colleges are suggested to consider CLT approach for the learners to have a clear knowledge of the phonological, functional, linguistic, cultural, lexical,

grammatical, interactional, socio-linguistic and social-cultural competence to accomplish 'communicative competence' in English.

Grammatical Competence

The principles of Grammatical Competence in teaching grammar, refers to the ability to use the learned features and the English language correctly and the rules of that are derived from the CLT methodologies. This also includes pronunciation, vocabulary and sentence formation. Communication should be taught with grammar in context and to relate with other language skills. During grammar instruction, The EST teachers are recommended, to facilitate meaningful input through context and allow the learners to understand and provide them an opportunity to use the grammar instructions to real life situations. If grammar instruction is focused in the same way as the other four skills is taught, the best could be achieved with involving smooth and structured transitions.

Lexical Competence: Technical Vocabulary

In present days, it is believed vocabulary acquisition plays a vital role. Hence, vocabulary teaching should be part of the syllabus, and must be taught in a well-designed way. Every field of science and technology has different terms and phrases. Learners may be trained Technical vocabulary to use words with appropriateness and accuracy for more effective communication.

Strategies for Learning Technical Words

Vocabulary instruction includes definitional and contextual information about a word which gives multiple exposures to a word in different contexts and motivates the students' active participation in learning the new words on their own. Strategies of vocabulary items by Cohen (1987, p. 43) grouped under three main categories:

- Strategies for Remembering Words
- Semantic Strategies:
- Vocabulary Learning and Practicing Strategies

Hence, the Teachers should:

- Motivate the learners to enhance the general skills of recognizing technical words, relating to a core meaning, to know the word parts and interpreting definitions.
- Facilitate the learners to use the tools in dealing with technical words. Teachers should draw attention to the vocabulary strategies.
- Help the students to write technical papers and provide materials for reading and writing in English courses which will be more of technical oriented.

The Teacher's Role in a Learner-Centered Classroom

The teacher's role is absolutely critical in a learner-centered classroom which requires practice, patience and a willingness to try new things. The teacher has to use innovative techniques in the teaching process. The role of the teacher in a learner-centered classroom should concentrate on Learner-Centered Activities which must be designed to make

students comfortable with different strategies in English language teaching and learning process. The LSRW Skills, grammar and vocabulary should be focused primarily for designing activities such as

Listening and Speaking Activities

Simulation, presentations, role-play, group discussions on the topics of science and technology, seminars, mock interviews are recommended.

Reading and Writing Activities

Reading-comprehension exercises of science and technical texts of different types are primarily recommended emphasizing on extensive reading, intensive reading, scanning and skimming, etc.

Grammar and Vocabulary Activities

To make the students to practice in identifying tenses, adjectives of description, sentence structures, use of modal auxiliaries, connectives in technical texts and conditional sentences, while reading and writing. They should be guided to use technical vocabulary.

CONCLUSIONS

To conclude, Learner Centered Approach bestows an opportunity to the students on individual learning environment in their learning process. The study is basically useful for the teachers of English Language Teaching in engineering colleges. It deals with the competency requirements of the English teachers. The findings of the study provide useful and practical information to the Technical Institutions to improve the competency skills of the students of engineering and technology who gets benefited in accomplishing their language needs for the employability.

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