1. INTRODUCTION

1.0 English in India

The need to use English and its relative importance in day to day life is increasingly felt with the modernisation process and the utilisation of the fruits of science and technology throughout the world. All non-native English speaking /using countries, big and small, developed and developing, the powerful and the weak have understood the very important role English has to play in the twenty-first century. With more and more people wanting to learn English, English teaching has become a real industry, involving a lot of human and material resources. But methods of language teaching, together with books and other supporting materials based on them have turned out to be unsatisfactory as universal solution to problems in second language course design (Janice Yalden 1987:6). With the recognition of learner autonomy more and more, one has to necessarily recognise teacher autonomy which involves the development of the teachers' ability and skills to train the learners towards the mastery of the language skills with an eye on the individual learners learning differences and their style of learning. However, most of the available resources have been prepared by the native speakers who are mostly monolinguals. They have prepared resource books mostly for
learners who learn English as their mother tongue. Occasionally they have researched second language settings. The English language needs of a multi-lingual setting are not probably any different from others. But the mental abilities of a learner from a multi-lingual setting, for instance India which has a rich, hoary and culturally sound tradition spreading over a fairly long period, should be taken into account while designing ESL courses for the Indian learner to provoke and sustain his interest. English, a gift of goddess Saraswati to India, as late C. Rajagopalachari put it, had been used by a number of eminent citizens such as Dr. Sarvepalli Radhakrishnan, Sri V.S. Srinivasa Sastri, Jawaharlal Nehru, Rabindranath Tagore and several others as effectively as any other native speaker of English. But in the present-day changed context, equal opportunities are provided to all the citizens of our country for the achievement of real democratic principles. Hence, present day ESL courses need to be designed taking into account a number of factors, social, economical, political, historical, pedagogical, managerial, professional, bureaucratic and others.

1.1.0 English in India - a Paradox

Traditionally, Indians have been an exclusive people, proud of their past and of their heritage and
trying to build walls and barriers to preserve it. Yet we chose to curry favour with the officers of the East India Company to become their clerks, or to occupy other lower ranks. Even before the arrival of the Europeans, India was subjected to a number of invasions by successive waves of peoples and tribes. It had, in the process, absorbed several alien cultures and languages. With other foreigners and their languages, their influence was a temporary phenomenon. For instance, the Mughul invasion of India did not lead to the absorption of the language of the Moghuls by the people of India.

The Dutch, the French, the Portuguese and English entered this country in almost similar circumstances, but none of their languages except English had any impact on the people of this country. English alone has come to occupy a pivotal position and enjoy the status of an associate official language of India and more importantly, the medium of instruction in higher education.

1.1.1. Language Policies of the Government

Ideally a learner can learn best through his/her mother tongue. But in a country like India, owing to a number of historical, geographical and political reasons, the learners have had to use different
languages in different places. In the absence of any common and acceptable language other than Hindi, English has been adopted as the associate, official language and a link between the Central Government and the State Governments, and also among the states. English is the only medium of communication in all national level conferences, seminars and workshops attended by scientists, technocrats, engineers, administrators and other professionals. English has contributed in a significant way in different spheres of activity. It has also helped us to understand each other better. But the Government policy on the use of English has been influenced by political attitudes and linguistic characteristics, which have lowered standards of English. In dealing with the question of the use of English in India one has to recognise the paradoxes that coexist. Whereas in the Northern states, people advocate the use of Hindi, in the South, particularly Tamil Nadu, people are against the use of Hindi; Governments in power in Tamil Nadu have been consistent in their demand for the retention of English as an official associate language and language of inter-state communication. Successive Governments have been pleading for incorporating Jawaharlal Nehru's assurance and permitting the use of
English by non-Hindi speaking people for an indefinite period.

While the Tamil Nadu Government believes in the two language formula, the use of Tamil and English, the Central Government advocates the three language formula, namely, the study of Hindi, English and a regional language. In reality, in some Northern states, it is only a one-language formula, namely, the use of Hindi. However, the language of communication at the national level deliberations, press briefings and other official level meetings is English. Elsewhere, English is used alongside Hindi. For instance, Doordarshan (Indian Television) makes all its announcements in the national and network programmes in Hindi and English. Paradoxically, inspite of several interstate rivalries and controversies, English has remained a cohesive factor binding all the states together and keeping them in the national mainstream.

1.1.2 Learning of English is a Necessity

According to the University Education Commission, English is said to have been "one of the potent factors in the development of unity in the country. In fact the concept of nationality and the sentiment of nationalism are largely the unintended by-products of English education though some would like to believe
that it is a gift (University Education Commission 1950:316). English has not only helped to foster unity but "in addition English has supplied us with the key to the fundamental ideas of modern civilisation, modern science and philosophy and what is more important, for all purposes English will continue to be our principal means of maintaining contact with the outside world" (Ibid). Hence it is necessary for our learners who undergo training at the university or other higher technical institutions to acquire sufficient mastery of English to give them access to the treasures of knowledge (Ibid:325).

1.1.3 Teaching of English as a Second Language

The status of English altered substantially after India attained freedom. The attitudes towards the use of English changed considerably, but not the objectives, methods, materials and evaluation procedures of teaching English as a second language (ESL). The introduction of the regional languages as the medium of instruction, the hostile attitude of politicians towards the study of English, which was seen as a symbol of slavery to the British, and the lack of planning in the design and implementation of ESL programmes contributed to a progressive decline in the use of English. However, the general notion that the
standards of the study of English have gone down in India is not true. For one thing there has been a mushrooming of English medium schools and increasing number of schools have been clamouring for additional English medium sections. A number of newspapers and journals have been appearing in English in the major cities in India. The English language press has grown in size and influence. The English daily "The Hindu" which used to be published only from Madras has started facsimile publication of its newspaper from the cities of Madurai, Coimbatore, Bangalore, Hyderabad and Delhi. Several magazines such as India Today, The Week, Frontline and The Illustrated Weekly of India, all in English, have started appearing and selling a large number of copies. The electronic media which have helped us to bring the whole world inside our drawing room use English as their basic medium. Satellites beam the BBC, the Star TV, the CNN and other world television programmes. The English news programmes are extremely popular with viewers. Thus there is scope for increased exposure to English. It is true however, that the designers of ESL programmes have failed to match the needs and aspirations of the learners with the objectives of ESL programmes.

Learners seeking admission to the courses at the national level institutions such as the Indian
Institutes of Technology, Indian Institutes of Management, Central Universities, National Defence Academy, All India Institute of Medical Sciences, Regional Engineering Colleges and other reputed professional colleges are extremely competent in the use of English though they have taken up English education at different levels of their schooling. Some of these learners appear for examinations such as the Test of English as a Foreign Language (TOEFL), Graduate Record Examination (GRE) and Graduate Management Examination (GMAT) and get excellent scores and seek admission to a variety of professional courses offered in the universities in the West and also in Australia. Of course, there are other obvious factors such as interest, aptitude, motivation, environment that are responsible for the language proficiency level of these learners.

1.1.4 A Perfect Paradox: English as the Language of Instruction and the Regional Language as the Language of Communication

Paradoxically, there is a dichotomy maintained in respect of the language of instruction at the tertiary level institutions and the language of communication in the places of work. The language of communication at the universities and colleges of
agriculture is English, but the language of farming and agriculture at the grassroots level is the regional language. The language of instruction at the universities and colleges of science, engineering and technology is English, but, the language used by the scientists, engineers and technologists at the shopfloor of factories and workshops is the regional language. The language of the law colleges is English but the government believes in using the regional language while delivering judgements so that these judgements may be intelligible to the common man. The medium of instruction at the medical colleges and universities is English, and yet the doctors need to make use of the regional language while treating the patients. Thus, it is necessary for our learners to reach a specified level of mastery, not only in the use of English, but also the regional language. But the average learners and the learners from the regional medium schools do not reach the desired level of proficiency to employ the skills of communication. It is imperative therefore, to take cognizance of the changed social context while deciding on the course objectives of an ESL programme. Such an ESL Programme would take into account the language needs of a typical ESL learner for undergoing a course of study and later, his on-the-job language requirements. It is
important that classroom communication strategies and the learner's learning materials should facilitate the achievement of the objectives of the ESL Programme.

1.2.0: Teaching of English as a Second Language: a

The teaching of English in India from the very beginning has been a big puzzle. It has lacked well-defined academic objectives from the point of view of a learner of English as a second language. A narrow and limited objective was projected when English was introduced in India, namely, to train the local people for service with the East India Company as clerks and to occupy other lower ranks. The ruling class of Englishmen in India had purely a mercenary motive when they offered instruction in English to the Indians who wished to join the company's service. The imperialistic ways of the Englishmen in India resulted in the English language being taught the way it was taught to the learners in the British schools, to the native English learners learning English as their mother tongue.

With the introduction of dyarchy in colonial India, the regional languages replaced English as the medium of instruction in the educational institutions. However, the motivation for the study of English
remained high because a sound knowledge of English was considered essential for recognition and a respectable social status in the society.

The mastering of literary texts was considered essential for all learners in the tertiary level institutions as it was believed that such matter led to a civilising and humanizing effect. Thus, literary texts of an advanced kind continued to be taught in educational institutions. As for methods of teaching, the lecture method was the only method adopted by the teachers in the classroom while almost no opportunity was provided to the learners to use the language. The examinations consisted mostly of essay-type questions on the content portions taught in the classroom with a few passages for annotations and grammar exercises at the sentence level. The objective could not have been linguistic competence because neither the text prescribed nor the methods of teaching and of testing could have led to it; the objective could not have been literary competence either, because it demanded only a kind of rote study of literary texts, and not any close study of the literary language of the texts. These approaches and practices have continued till today. Thus, the teaching objectives of English as a second language at the institutions of higher learning continue to be a puzzle.
1.2.1 The ESL Classroom

In such a situation, the teacher of English is implanted at present in the class without any guidelines, the only guiding factor being the examination.

The class is an ill-assorted group; most of the learners come from regional medium schools; their knowledge of English is inadequate. The rest of the class hail from English medium schools. It is an impossible task for the teacher to maintain a level of instruction that is both interesting to the intelligent and intelligible to the interested. The task is rendered more arduous and unrewarding as the "text" is the same for the entire class and does not admit of any other method of teaching, except lecturing; individualisation of instruction is impossible. The teacher of English is given a text book that is full of literary passage and he/she is asked to cover the syllabus and get the learners ready for the examination.

1.2.2 The ESL Learner

A typical ESL learner drifts in and drifts out of educational institutions aimlessly. Hardly any attention is paid to the educational objectives of a programme of study or to the suitability of a learner.
for admission to a particular course of study. The whole system betrays a pathetic lack of direction and awareness of individual and social objectives. The subjects that the learner has to master are richer in content and wider in range, and therefore require the learner to spend more time mastering them. But most of the learners are not equipped with the English language abilities necessary to understand the content/subject matter in English. This necessitates a new and more effective method of teaching English and more effective teaching/learning materials.

1.2.3 The ESL Teacher

Most of the English teachers teaching at the tertiary level institutions in India do not have any formal training in the teaching of English as a second language. Often, their own mastery of the language is woefully deficient. In the absence of any sound methodology known to these teachers, they evolve their own methodologies. Some teachers however, may have undergone the post graduate certificate and diploma programmes in the teaching of English offered by the Central Institute of English and Foreign Languages, Hyderabad. A few teachers have undergone training in some of the English Languages Institutes of Education of some universities in the United Kingdom. These
teachers try to practise the newly acquired skills initially out of enthusiasm, but withdraw themselves slowly to switch back to the traditional method of lecturing. Probably, these teachers are worried about covering the content portions of the syllabus, namely the prescribed prose text, poetry text, drama or collection of one-act plays.

1.2.4 The ESL Materials in Use

The materials prescribed by the universities have always focused on the use of literary texts from Bacon's essays to those of Robert Lynd, from Milton to Yeats and from Shakespeare to Galsworthy. There does not seem to be any clear thinking involved in the preparation of materials as is evident from an absence of a statement of objectives and the other essential components of a syllabus. Quite often, the 'syllabus' is no more than a list of books to be taught. What is prescribed for study is in fact a hastily compiled anthology of essays and stories, poems, one-act plays, a collection of short stories, a Shakespeare play or as an alternative to Shakespeare, a modern play. The list of books to be studied does not conform to any principle of ESL course design at the undergraduate level. Learners with wide ranging abilities in using the language, from an advanced level to a below-average
level, do not respond favourably to this amorphous collection of prose essays, poems, plays and short stories. What was fancied and prescribed for study during the colonial period is still considered suitable for the learners and prescribed for study at the tertiary level.

1.2.5 ESL Evaluation

The only tool employed to test the proficiency level of the learners is the end-of-the year/semester examinations. Teaching/learning is a continuum and judging the proficiency level of the learners for a pass/fail decision at the end-of-the year/semester examination is not quite fair. Any evaluation procedure should not only provide for the objective assessment of the learners' performance, but should also provide for remedial measures to improve the performance level of learners with a lower ability and the enrichment of the learning experiences/materials based on the feedback.

The current ESL classroom practices deserve to be evaluated and solutions be found to alter the course of the present ESL course implementation.

1.3.0 Aim of the Present Study

Syllabuses in respect of subjects such as Mathematics, Physics, Chemistry, Biology, Economics,
Commerce, etcetera., have undergone major revision and have been enriched with additional content. The English language courses, however, continue to be designed on the model provided by Dr. Mouat, the Secretary to the Council of Education of the East India Company (1845) who believed that the learners at the tertiary level should be familiar with the works of Bacon, Johnson, Milton and Shakespeare. The ESL classroom content and the management of learner activities by the ESL teacher remain unchanged. One is reminded of Professor Randolph Quirk's observations when he visited India. Quirk thought that ".....the bulk of the students, leaders of India's professions in the immediate future, arrive at the university with a standard of English that makes it impossible for them to understand lectures in the subjects and renders their writing painful and inadequate. For these students and problems, I found no English Department well-staffed either in numbers or by interest or by training" (Randolph Quirk 1963: mimeo). Quirk deplored the trend of prescribing literary texts, often casually selected "for students whose immediate need is for solid linguistic practice and a training in the practical use of mid-twentieth century English" (Ibid :Mimeo). He also refers to the experience of an American teacher John B. Shaw who taught English in one
of the universities in India. Shaw remarked, "Why must these young men and women of Tamil Nadu read late nineteenth century essays, packed with trivial allusions to London streets, Victorian dress and English birds and written in a prose style as difficult to read as it is useless to emulate" (Ibid: Mimeo). Thus, at present, the learners do not get help from the ESL courses offered to them at the tertiary level. It is important to begin with objectives specifications for teaching and learning. These objectives should be directly related to the learner's present English language use. Learners at the tertiary level institutions normally need to follow simple spoken English delivered at a fairly reasonable speed; understand instructions and directions, read with understanding any material in simplified English with the aid of a glossary at a reasonable speed; speak or converse briefly in simple and grammatically correct English on a range of subjects already learnt in the class, laboratory and workshop situations, write a series of connected sentences in the form of a short paragraph or an essay or a personal letter or a business letter or a technical report, or answers to questions on the text; extend their vocabulary towards their future needs; construct sentences grammatically
and reach a fairly acceptable level of proficiency in language use and usage.

The aim of the present study is to enable the formulation and implementation of an ESL syllabus appropriate to the needs and aspirations of the learners as well as the future employers. The present investigation will try to

i. speculate on the possible needs of the tertiary level learners of English

ii. define objectives based on (i)

iii. select and organise learning materials/experiences

iv. evolve appropriate classroom strategies and methods for encouraging communication resulting in suitable learning experiences

v. eliminate/reduce constraints on ESL programme implementation

vi. implement the planned ESL programme

vii. evaluate the implemented programme

viii. arrange for feedback

ix. suggest better classroom procedures, learning materials and testing procedures and

x. refine and improve the curriculum plan based on the feedback.

1.4.0 Development of Instruments for Data Collection

For the purposes of data collection, especially for the identification of needs of the learners,
questionnaires were prepared. Close-ended questionnaires may restrict the respondents' choice. At the same time, open-ended questionnaires may attract irrelevant details, thereby and the focus in respect of the research may get lost. Hence, the researcher decided to meet the respondents individually and collect data. Apart from the questionnaires, structured interviews were conducted and views expressed by a respondent added to the main body of data. Observation charts were also used to identify the possible situations where English was more often used. Statistical details regarding growth, expansion, enrollment etcetera. were collected from the State Education Department.

However, questionnaires to seek feedback on the present status of the ESL syllabus and the ESL materials in use and the ESL classroom strategies for communication were designed and administered on a sample population of teachers, learners, practising professionals and others from a variety of settings. The data collected were incorporated while designing the ESL curriculum for the learners pursuing a five year integrated course leading to the award of M.Sc. degree in Polymer Science by the University of Madras.
1.4.1. The Sample

The investigator tried to seek the opinion of
i. the learners at the tertiary level institutions admitted to a variety of courses
ii. the teachers of English
iii. the teachers of subjects teaching various subjects
iv. the professionals belonging to industries, public sector undertakings, State and Central Government offices, banks and other professionals like doctors, lawyers etcetera.

Classroom observation charts were prepared to identify the classroom procedures/techniques adopted by teachers of English and other subjects.

Question papers of the past years were obtained from the university for a detailed analysis.

1.5.0 Relevance and Purpose of the Study

Although a lot of work was carried out relating to the role and function of English Learning in India earlier, it was in 1975 that Mahajiteshwar Das undertook a detailed survey of the learner's needs in Orissa.

Later, Dr. B.N. Koul (1981) worked on the roles and functions of English. Koul in fact undertook a global study of ELT situation in India. No major efforts have been made to correct the current ESL practices at the
tertiary level in Tamil Nadu. Hence, the researcher thought that the present study would be relevant and highly useful in its nature, orientation, findings and suggestions. The findings arising out of the implementation of revised ESL curriculum for the learners of Polymer Chemistry of the A.C. College of Technology, University of Madras, and the feedback clearly point to the usefulness of the study.

1.6.0 Limitations of the Study

There may have been elements of subjectivity in the design of questionnaires meant for professionals and learners. There may be subjectivity in the choice of random sample population. There can be an element of subjectivity in the choice of objectives. The views of the learners, the English teachers and the subject teachers have been incorporated while fixing the objectives for the model ESL curriculum. A lot of care has been exercised in the design and implementation of the model curriculum, namely, an English for Science and Technology (EST) course for the post +2 level five year integrated M.Sc Polymer Chemistry programme of the Department of Polymer Chemistry, the Alagappa Chettiar College of Technology, University of Madras, Guindy campus, Madras. The broad framework and the guidelines enlisted can be best thought of as a model, although
there can be other approaches to the design and implementation of the ESL curriculum model.

1.7.0 Chapterwise Profile

Chapter I relates to a description of the need for teaching English as a second language at the tertiary level and its role in the modern context. The language planning and policies of the government are recounted and the apparent paradox of English as a medium of instruction in educational institutions and the regional language as the language of communication is established.

Chapter II provides a study in retrospect of the English teaching in India. The role of the East India Company, the objectives of teaching English, Macaulay's minutes, the British administration's educational policies over the period till Indian independence, the role of social reformers such as Raja Ram Mohan Roy in the implementation of English education in India, the establishment of the first universities in India, English teaching in the post-independence era, three language formula and its implementation only in some states, Jawaharlal Nehru's assurance to the non-Hindi speaking people on the status of English, the establishment of English Language Teaching Institutes
and the Central Institute of English and Foreign Languages, Hyderabad are discussed.

A quick appraisal of the current ESL practices begins with an ESL syllabus analysis which includes an analysis of objectives, content, strategies for classroom communication and evaluation of ESL materials and evaluation practices. It concludes establishing very clearly the need to have a fresh look at ESL course planning, design and implementation at the tertiary level.

Chapter III presents us with a glimpse of theoretical precepts, approaches and methods in language teaching. The section on theoretical principles informs us about the need for linguistics in language teaching, the contributions made by various linguists over the years from Ferdinand de Saussure to Widdowson, behaviourist psychology, cognitivist psychology, as also pedagogical and managerial practices.

The section on approaches and methods deals with the grammar-translation method, the audio-lingual method, the direct method, the oral approach and situational language teaching, communicative language teaching, total physical response, suggestopedia, community language learning and other methods and approaches to English language teaching.
Chapter IV provides a blue print for ESL curriculum planning and design. This section begins with the curriculum syllabus distinction and leads to needs identification, analysis of environment, the roles of ESL learners, teachers and professionals such as curriculum developers and administrators, educational instructional objectives, levels of objectives, education and training objectives, and ends with a model of result-oriented ESL needs assessment system and a process oriented means-ends ESL curriculum model. Once the type of curriculum is decided upon, selection and organisation of teaching/learning content/materials, the adoption of effective strategies for classroom communication and a fairly scientific means of assessing learning outcomes should also be specified. Hence, the next stage in the ESL curriculum process shall be based on the sound rationale for particular types and choices of teaching/learning materials and strategies for classroom communication and learning experiences. A draft curriculum model for introduction at the tertiary level is also provided.

Chapter V introduces us to the core of the issue, namely, ESL programme organisation at the tertiary level. After the identification of the needs of the learners, the teachers and the professionals or future
employers and with the kind of curriculum framework provided (Chapter IV) and with the help of the theories, approaches and methods the investigator of this study recommends suitable methods, classroom activities and extended activities. Some of the techniques employed by the investigator include learning experiences in groups to promote interpersonal relations/communication, learning experiences to provoke critical thinking and logical reasoning, engineering and scientific experiments as problem-solving activities, teaching/learning English through general knowledge, learning experiences towards more learner-centered activities, production of parallel texts, simplification of texts, learning through field visits, learning grammar through communicative activities and presentation skills which involve the development of the learner's abilities to present a paper in a seminar/workshop/conference, participate in a group discussion, panel discussion, symposium and debate and lecture before an audience for a specific purpose or writing a case-study report, project report, feasibility report, etcetera.

Chapter VI deals with project implementation. The department of Polymer Chemistry, Alagappa Chettiar College of Technology, University of Madras, Guindy Campus, initiated efforts towards the introduction of
Polymer Chemistry as a discipline at the post +2 level in 1987 and the programme itself took off in 1988. The department wanted to offer an English language programme with the following components: developing abilities to read scientific and technical books, journals, periodicals, etcetera. Particpating in peer group activities and group activities leading to group discussion; making seminar presentations and formal presentations before an audience, facing an interview committee, writing technical reports, articles, term-papers, project reports, etcetera.

The investigator designed a curriculum entitled 'English for Science and Technology I and II', organised classroom activities, guided the learners in their projects and provided a model for an open-book end of year/semester examination question paper on English for Science and Technology I and II. The Chapter provides the details of the materials used and strategies of classroom communication at the implementation level.

Chapter VII presents the details of the curriculum evaluation of English for Science and Technology I and II course conducted over a period of three years (1988-1991). Two batches of learners underwent the programme as part of their integrated M.Sc Polymers programme. Any project needs to be evaluated to find out
whether whatever was aimed at was also implemented and objectives achieved towards the end of the programme, the researcher carried out an evaluation of the course.

The investigator followed an ORC model, namely, 'Overcoming Resistance to Change' at the project implementation stage. For purposes of the curriculum evaluation, the model provided by Ralph Tyler in 1942, still holds good. However, a modified version of Tyler's model, the Metfessel-Michael model (1967) is attempted. It provides for eight steps in curriculum evaluation. The model clearly informs us among other things that evaluators should engage themselves in all the activities of those concerned who will be affected by the curriculum, namely the teachers, professionals, the learners, senior citizens, experts and others. Formative evaluation takes care of the quality of learning materials and learning experiences in the classroom.

The final results of the learners' performance at the end-of-year examinations reveal the suitability of the course for adoption by universities at the post +2 level for their undergraduate programmes.