Chapter 2

REVIEW OF LITTERATURE

This chapter will review and discuss some of the literature in investigating the research problem. First, it describes the importance of reading in the science and technology supremacy. Subsequently, it discusses needs analysis. Included in the review are definitions of ESP and its parameters and the process of designing ESP programs.

2.0 Reading : Its Significance in the Scientific and Technological Innovation Era.

Among the four basic skills found in a language, Carrel (1988) is of the opinion that reading especially in English as a second or foreign language is the most vital skill. Simultaneously, Fishman (1977) cites that English has been the language to acquire current developments and discoveries in the areas of technology, business, information technology, and not least in pursuing higher education in institutions of advance learning either abroad or locally. On the other hand, the British Council reported a statement to this effect. It points out that English is undeniably is the most widely utilized medium for communicating ideas and facts in the science and technology field.
Meanwhile, Lott (1971) and Mackay and Mountford (1976) acknowledge that nearly half of the literature particularly in the fields of science and technology are written and explained in English. Consequently, students whose proficiency is at doubtful level would encounter plenty of obstacles and apprehension in comprehending scientific and technological literature in English.

Nevertheless, Kennedy and Bolitho (1984) consolidates the position of English by clearly indicating that technocrats and scientists need to empower themselves in English proficiency to sufficiently acquire knowledge of specialization. Moreover, Mackay and Mountford (1976) and Ewer and Lattore (1967) note that the success of undergraduates is increasingly dependent on their ability to read and comprehend the relevant literature in English.

2.1 Needs Analysis

Stufflebeam, McCormick, Brinkerhoff and Nelson (1985) define needs analysis as:

"the process of determining the things that are necessary or useful for the fulfillment of a defensible purpose."


She defines the term as:
"analysing language needs meant essentially, and exclusively defining firstly the situations in which the learners would need to use the language they were learning, and then defining the characteristics of the language used in those situations. Thus, the primary object is to foresee, before learning began and is as detailed and exact manner as possible, what an individual or group of individuals were going to do with the language they were about to learn at once they had finished learning it, in order to determine in advance the objectives, content and means to be used in teaching it."

It must be emphasized here that the aims to identify needs analysis to determine what exactly the needs of a particular targeted group is not restricted to ESP courses but can be carried out with other types of courses. Nevertheless, the idea of analyzing the language needs of the learner forms the basis for course development has become synonymous with ESP lately (McDonough, 1984; Robinson, 1980; Munby, 1978). Even in the Modern Languages Project, Trim (1984) pointed out that it was recognised that:

"if language was to be truly efficient and effective, it would have to be geared as directly as possible to satisfying the needs of learners."

Brumfit (1977) emphasizes its significance in general language courses as well as ESP course. Brumfit went further by stating that it stands a better chance of being relevant and appropriate if it is based on a prior analysis of needs irrespective of the syllabus content.

Needs analysis inevitably becomes a significant theoretical framework in communicative approaches to teach communicative competence. Ideally, the identification of communicative needs should precede the selection of communicative functions to be taught. Brindley
(1989) agrees with Brumfit's (1984) opinion that:

"functions, as yet systemised, do depend on the ability of the syllabus to specify the needs of the learner."

Munby adds that relevance and appropriateness is necessary in the teaching of language. Hence, a prior analysis is necessary for the above reason. In addition, Munby (1978) proposes a mechanism to enable the needs analyst to draw up an accurate profile of the individual language learner. According to Munby (1978):

"...one starts with the person (a language participant or category of participant) and investigate his particular."

This will enable the needs analyst to identify the skills and functions required by the learner and then draw up suitable program for different individuals.

Wilkins (1983) highlights a reliable source for needs analysis, i.e.

"the students themselves, once following their academic course are able to provide feedback...on both the language tasks and deficiencies......It enables us to recognize needs which are shared by a large proportion of the students and to plan accordingly."

Meanwhile, Meriel Bloor (1984) suggests that the needs analysis be 'target centred', i.e. looking at;

'the learners' future role(s) and attempts to specify what language skills,........linguistic knowledge the learner needs in order to perform the role(s) adequately'

Until these fundamental questions are answered, teachers of ESP would be in the dark what exactly to teach to equip the students with the essential skills to carry out certain roles and functions in their daily routines.

Wilkins (1974) acknowledges the need to assess the goals and
the needs of students in any language teaching situation. He states that:

'the first principle of a sound approach to language teaching is to know what the objectives of teaching are and to predict what kind of language skills will be of greatest value to the learners.'

Therefore, Bachman and Stick (1978) reiterates a preliminary analysis of learners' needs and expectations will be of enormous value and a prerequisite to language program development in any language teaching environment either for 'general' or 'specific' purpose.

The needs analysis is vital to be carried out by planners and educators to which the language will be assigned to operate and function. Mackay (1978) states the chaotic outcome can be anticipated as a result of an haphazard approach to language learning. In Mackay words it sounds like this;

'... vague, confused and erroneous results will emerge as a result of informal approaches to learners in whatever professional field of study or vocational field they belong to'.

Richterich (1981) referring to the type of analysis to be carried out by course planners:

'on some basis other than intuition, practice, experience and imitation'

but favoured employing light, rapid techniques that could provide the necessary data and in accordance with particular circumstances and situations. On another note, Schruder (1991) proposes four techniques for investigating the needs: the questionnaire, detailed interview, participating observation and press advertisements. By press advertisements, he means the advertisement of jobs vacancies in the newspaper which would likely provide some important clue to indicate the language needs of the job.
Occasionally, needs analysis has been by-passed. This happens because language teachers on the job can't afford to wait for background research although undeniably needs analysis is considered important. Shultz and Derwing (1981) pointed out that the systematic assessment of learners' needs and expectation is a 'very complicated and difficult enterprise indeed, at least if the results are of sufficient high quality to afford genuine benefit to language teachers and their students'.

As for Derwing and Schultz (1981) suggest an eight stage plan for the evaluation of needs. The eight faceted action plan are defining the purpose (i.e. goals and objectives) of the program, determining the target population and delineating the parameters of investigation, obtaining information from the population surveyed such as their general background, occupational or academic field, their English language background, the relevance of English in their field, attitudinal and motivation factors, the course content, methods of instruction and lastly the subjects reactions to the program.

Candlin (1984) states that "some content-bank" becomes the source for the content of a program designed. Meanwhile, Hawkey (1984) points out that researched learner needs should be given due considerations whilst specifying objectives of a program. Trim (1980) categorically points out that the fixation of personal aims is intimately dependent upon a successful needs analysis.

McCall (1992) feels that the most important element in the process
of implementation of a language program is carrying out a thorough needs analysis study. Correspondingly, she feels that the following areas need to be covered i.e. a profile of the users, context of learning, the services to be provided and available resources as well as staffing.

Language for Special Purposes programs have given a new importance to the question of the assessment of course goals and individual language learner needs. Duda (1975) delineate procedures for course design in ESP to include:

1. analyzing learner needs
2. placing emphasis at all levels on communicative competence using language that is real and relevant to learner’s experiences
3. encouraging the dynamic roles of both the instructor ant the learner to establish an environment conducive to mutual learning
4. using material that is authentic, not distorted or created by the instructor
5. providing opportunities for student-centred activities.

The needs analysis in this study concerns itself with the needs of the engineering students and the needs of the entire technical institutions in the whole country. Therefore, needs analysis studies has to be broadly comprehended as not necessarily conceived in a micro perception for the study at a macro level.
2.2 ESP: Definition and its Parameters

Over the years, the expression ESP has experienced transition from its original form as English for Special Purposes to English for Specific Purposes. Robinson (1980) explains:

"English for Special Purpose is thought to suggest special languages i.e restricted languages, which for many people is only a small part of ESP, whereas English for Specific Purposes focuses attention on the purpose of the learner and refers to the whole range language resources."

Meanwhile, Mackay and Mountford (1978) are of the stand that the phrase ESP excludes the study of English for technical, professional and the likes. Therefore, it is only proper to alter the term to English for Specific Purposes to place them under its jurisdiction. According to them, English for Specific Purposes should have the following purposes:

"Occupational requirements, e.g. for international telephone operators, civil airline pilots, etc. vocational training programmes, e.g. for hotel, etc."

Hutchinson and Waters (1987) have enlisted 3 key reasons that paved the way for the rise of English for Specific Purposes:

1. "The rise of English as an international language of commerce, Science and technology and the subsequent world demand for an instrumental knowledge of the language;

2. The development of the field of sociolinguistics with its emphasis on language variations and communication; and

3. Recent developments in educational psychology in which the needs learner are paramount."

From these features, apparently the movement towards greater specialization is inevitable

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in language learning endeavors. Language being dynamic in its appearance, therefore the ongoing renewal in language needs due to specialization and scientific discoveries require a substantial transformation especially in ESP.

As Robinson (1980) and McKay and Mountford (1979) comment, the teaching of English is not an end in itself in ESP courses, but an essential means to a specific goal. English becomes the medium needed to achieve a purpose. This purpose is usually defined with reference to various occupational requirements.

It is clear from the definition that ESP courses are directly concerned with the purposes for which the learner needs English. Labeling courses, or materials as "special purpose" language courses to attract learners is not ESP. Although one might argue that a true ESP course will have only one student, since each individual has individual needs, the usual ESP course is designed for a group learners with similar needs. According to Crandall (1979) ESP is also related to Language for Specific Purposes (LSP) which is used to classify second and foreign language courses designed for special groups and special reasons. He stresses further by claiming that English for Specific Purposes courses have generally been characterized by their emphasis on specific structures and discourse styles required of a given profession; in addition to including the specific lexicon of the occupation.

"Specific" in the opinion of Robinson (1980) means attention on the purpose of the learner and refers to the entire range of language resources. Meanwhile MacKay and Mountford (1978) expounds that the essence of ESP is not concerned with the teaching of
a special language as a quantifiable register defined in linguistic, lexical and structural terms, but rather constitutes the various and particular circumstances to which individuals need to apply language.

2.3 Designing ESP Programs

Boyles (1981) identified the following elements to be included in the process of designing an ESP programs:

1. organizational and individual commitment;
2. analysis of the situation to include client and/or corporation need for the training;
3. identification of program format;
4. identification of broad and specific objectives;
5. instructional design;
6. putting the plan into effect;
7. evaluating the program.

Pennington and Green (1976) believe that in designing continuing education program in general, program planners must consider the environment in which they are operating, internal and external constraints, available resource and the possible outcome of decisions. Therefore, Boyle (1981) in designing Language for Specific Purposes (LSP) program, an institutional framework for programming might provide the most successful model especially in individuals' basic abilities is the primary emphasis. Thus, the emphasis is on facilitating learning.
McKay and Bosquet (1981) point out that decision making for the formation of policy of ESP program involves various individuals' whose concerns, functions and responsibilities, while related to the program and its impact, are not identical or necessarily co-extensive. Politicians, educators, curriculum planners, writers, teachers, evaluators, researchers and administrators are all involved in the total language-teaching operation. Thus, it is advisable that the stages and the phases involved in the total ESP programme development be clearly understood by all concerned. MCI and Bosquet (1981) propose three stages of ESP program design; pre-program development, program development and program maintenance and quality control.

The pre-program development stage involves policy formation or decision making accomplished by the authorised administrative body. A policy of educational goals and formal administrative commitment in the form of financial and human resource is necessary to initiate program development. After establishing the rationale for the program and obtaining financial support, it is advisable for the administration to dissemination phase to inform those affected by the decision and to invite reactions. Such reactions prior to program development ensures the opportunity of obtaining valuable information. (McKay and Bosquet, 1981)

The program development stage involves the administrators in a number of phases including: gathering basic information about learner needs to specifying educational objectives; establishing the parameters within which the entire program will be conceived and carried out; staffing the program, including the hiring teachers and training them; and evaluating the entire program. (McKay and Bosquet, 1981)
The program maintainence and quality control stage is concerned with monitoring the quality of the instruction, training teachers, and evaluating the appropriateness of the goals previously established for the program. Although this phase is less dynamic for the administrators, it is significant if the full potential of the time, money and effort invested in the program is to be realized. (McKay and Bosquet, 1981)

Long (1976) concludes that there are basically two tasks to be accomplished by curriculum designers, program planners and teachers: 1) identification of those communicative purposes students have or are going to have for English and 2) the creation of as many and as varied opportunities as possible for learners to communicate inside the classroom simulating situations to be encountered outside the class. Nevertheless, the two tasks constitute the very core of effective ESP programs and focus on the essential elements of needs identification and the planning of relevant language learning experiences.

Hutchinson and Waters (1987) have specified three main approaches in the course of designing an ESP course. The approaches consist of language centred, skills centred and learning centred. The ESP content in a language centred approach primarily depends substantially on the analysis of the target situation. But it has been criticized for being less flexible. However, this approach has shown little consideration to learners and reveals very little about the competence that underlies the performance despite appearing very systematic in its approach. As a consequence, the skills centred approach emerged that gives priority to enhance performance and competence. Hutchinson and Waters (1987:70) affirm that the skill-centred approach facilitates learners to augment skills and
strategies that will help to stimulate the learning of the ESP course.

It is evident, the skill-centred approach recognizes the learner as the user of the language. Therefore, it does not justify the premise that the student is seen as the learner of the language.

The present day trend have much difference in its emphasis. The existing emphasis is on the learner. Moreover, Hutchinson and Waters (1987:72) propound the learning-centred approach rather than the learner-centred way. The proponents regard learning as an action:

"the learners use what knowledge and skills they have of the flow of new information."

But one must bear in mind that the learning process is just not solely determined by the learner himself. On the contrary, there are other factors that influences the learner in the learning process.

Rebecca Richards (1988) is another advocator of the learning-centred approach. She states:

"the learning-centred ESP approach allows..........an interactive model of need analysis.............which defines the target, outcome and course objective as the course develops."

Her study points to the fact that the university and the department actually determined the input to the interactive model. She adds:

"all the participants, at all the relevant target levels determined not only the course outcome but course development."

Finally, we can conclude that this section has attempted to describe the significance of reading in the era of science and technological advancement, needs
analysis, definition of syllabus, syllabus design, types of syllabus, definition of ESP and its parameters and the process of designing of ESP program. Obviously, ESP is an area of great importance and potential as the current trend is towards teaching English for Specific Purposes i.e. a shift from the previous trends of teaching English for general purposes. Therefore, ESP has undergone evolution in response to awareness that learners require specialized needs that were distinctly lacking in the conventional EFL (English for Foreign Languages) courses.

On the other hand, it is essential to analyse needs so that the various needs can be determined by means of the qualitative and quantitative methods to design syllabuses geared to the identified needs.