Chapter II

RELEVANCE OF ESP IN THE PRESENT EDUCATIONAL SCENARIO

2.1 INTRODUCTION

English Language Teaching (ELT) can be broadly divided into English for General Purposes (EGP) and English for Specific Purposes (ESP). The teaching of English language at schools, colleges and Universities comes under English for General Purposes. ESP is meant for English for Occupational Purpose (EOP), English for Academic Purposes (EAP) and English for Science and Technology (EST).

2.1.1 The Difference between ESP and EGP

Tom Hutchinson and Alan Waters (1987: 53) have pointed out the differences between English for Specific Purposes (ESP) and English for General Purposes (EGP) in their book, *English for Specific Purposes: A Learning Centred Approach*.

On the face of it, ESP differs from EGP in the sense that the vocabulary, structures and the subject matter relate to a particular field or discipline in the former. For example, a lawyer writing a brief, or a diplomat preparing a policy paper needs his jargon. ESP courses make use of vocabulary and tasks related to the specific field that one belongs to. So a course in ESP is designed to meet the specific professional or academic needs of the learner, creating a balance between educational theory and practical considerations.

A closer look at EGP and ESP is, however, vital. English for General Purposes (EGP) is essentially manifested in the English courses offered in schools and colleges. The students are introduced to the lexical/grammatical/rhetorical elements that comprise
spoken and written discourses. EGP focuses on applications in general situations: performing in English on personal or social levels or using English in casual conversations and functions. The courses offered in English as Second Language (ESL) and English as a Foreign Language (EFL) situations offer proficiency in carrying on day-to-day functions. Pedagogically, a solid basis of EGP should precede the instruction in ESP which is on a higher level, if ESP programmes are to yield satisfactory results.

English for Specific Purposes (ESP) course, however, has instruction that builds on EGP and is designed to prepare the students for the English used in specific disciplines, vocations or professions to accomplish some specific purposes. ESP makes use of methodology and activities of the discipline it serves, and is centred on the language appropriate to these activities. As Tom Hutchinson and Alan Waters rightly put it, “ESP is an approach to language teaching in which all decisions as to content and method are based on the learner’s reason for learning” (1987: 19)

In this connection, it is interesting to note Tony Dudley-Evans (1987: 1-9) explanation that ESP may not always focus on the language of one specific discipline or occupation, such as English for Law or English for Physics. University instruction that introduces students to common features of academic discourse in Sciences or Humanities, is frequently called English for Academic Purposes (EAP), is also ESP.

2.1.2 ESP Revisited

ESP has had a relatively long time to mature and so one would expect the ESP community to have a clear idea about what ESP means. Strangely, however, this does not seem to be the case. For instance, a very heated debate has taken place on the TESP-L e-mail discussion list about whether or not English for Academic Purposes (EAP)
could be considered a part of ESP, in general. At the Japan Conference on ESP (1997) also, clear differences on how people interpreted the meaning of ESP could be seen. Some ESP scholars described ESP as simply being the teaching of English for any purpose that could be specified. Others, however, are more precise, describing it as the teaching of English used in academic studies or the teaching of English for vocational or professional purposes. At this conference, Dudley-Evans has clarified the meaning of ESP, giving an extended definition of ESP in terms of “absolute” and “variable” characteristics.

2.2 DEFINITION OF ESP

Peter Strevens’ (1988: 1-13) definition makes a distinction between four absolute and two variable characteristics.

I. Absolute characteristics:

ESP consists of English language teaching which is:

- designed to meet specified needs of the learner;
- related in content (i.e., in its themes and topics) to particular disciplines, occupations and activities;
- centred on the language appropriate to those activities in syntax, lexis, discourse, semantics, etc., and analysis of this discourse;
- in contrast with General English.

II. Variable characteristics:

ESP may be, but is not necessarily.

- restricted as to the language skills to be learned (e.g. reading only);
not taught according to any pre-ordained methodology (1-2).

Laurence Anthony (1997) notes that there has been considerable recent debate about what ESP means despite the fact that it is an approach which has been widely used over the last three decades. At a 1997, Japan Conference on ESP. Tony Dudley-Evans offered a modified definition. The revised definition he and St. John postulate is as follows:

I. Absolute Characteristics:

- ESP is defined to meet specific needs of the learner;
- ESP makes use of the underlying methodology and activities of the discipline it serves;
- ESP is centred on the language (grammar, lexis, register), skills, discourse and genres appropriate to these activities.

II. Variable Characteristics:

- ESP may be related to or designed for specific disciplines;
- ESP may use, in specific teaching situations, a different methodology from that of general English;
- ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation. It could, however, be for learners at secondary school level;
- ESP is generally designed for Intermediate or advanced students;
- Most ESP courses assume some basic knowledge of the language system, but it can be used with beginners (1998: 4-5).

Tony Dudley-Evans and St. John have removed the absolute characteristic stating that ‘ESP is in contrast with General English’ and added more variable
characteristics (1998: 298). They assert that ESP is not necessarily related to a specific discipline. Furthermore, ESP is likely to be used with adult learners although it could be used with young adults in a secondary school setting.

As for a broader definition of ESP, Tom Hutchinson and Alan Waters (1987: 19) theorize, “ESP is an approach to language teaching in which all decisions as to content and method are based on the learner’s reason for learning”. Laurence Anthony (1997) notes that, it is not clear where ESP courses end and general English courses begin; numerous non-specialist ESL instructors use an ESP approach in that their syllabi are based on analysis of learner needs and their own personal specialist knowledge of using English for real communication.

The division of ESP into absolute and variable characteristics, in particular, is very helpful in resolving arguments about what ESP is and what it is not. From Tony Dudley-Evans’ definition, one can see that ESP cannot be (though not necessarily so) concerned with a specific discipline, nor does it have to be aimed at a certain age group or ability range. ESP should be seen simply as an “approach” to teaching, or what Dudley-Evans describes as an attitude of mind.

2.3 THE MEANING OF THE WORD “SPECIFIC” IN ESP

The word “specific” in ESP refers to “specific in language” and “specific in aim.” A simple clarification that can be made here is: “specific in language” and “specific in aim” are viewed as similar concepts although they are two entirely different notions. George Perren (1974) noted that confusion arises over these two notions. Ronald Mackay, and Alan Mountford (1978: 4) have stated that the only practical way in which we can understand the notion of specific in language is as a restricted repertoire of words
and expressions selected from the whole language because that restricted repertoire covers every requirement within a well-defined context, task or vocation. On the other hand, “specific in aim” refers to the purpose for which the learners learn a language, not the nature of the language they learn. Consequently, the focus of the word “specific” in ESP is on the purpose for which the learners learn and not on the specific jargon or registers they learn. As such, all instances of language learning might be considered ESP.

2.4 ORIGIN OF ESP

Tom Hutchinson and Alan Waters (1987: 6-8) succinctly identified three key reasons that are common to the emergence of all ESP: the demands of a Brave New World, a revolution in linguistics and the focus on the learner. They noted that two key historical periods breathed life into ESP. First, the end of the Second World War brought with it an age of enormous and unprecedented expansion in scientific, technical and economic activity on an international scale. For various reasons, most notably the economic power and technological advancement of the United States in the Post-War World scenario, English has become an important language for global affairs. Secondly, the oil crisis of the early 1970s resulted in Western money and knowledge flowing into the oil-rich countries. The medium of this knowledge has been English. The general effect of all this development is to exert pressure on the language teaching profession to deliver the required goods.

The second key reason that has a tremendous impact on the emergence of ESP is a revolution in socio-linguistics. Whereas traditional linguists set out to describe the features of the language, the revolutionary pioneers in linguistics began to focus on the ways in which language is used in real communication. Tom Hutchinson and Alan
Waters (1987: 30) point out that one significant discovery is that ways of spoken and written English vary. In other words, given the particular context in which English is used, the variant of English will change. This idea can be taken one step further. If language in different situations varies, then tailoring language instruction to meet the needs of learners in specific contexts is also possible. Hence, in the late 1960s and the early 1970s, there are many attempts to describe English for Science and Technology (EST).

The final reason which Tom Hutchinson and Alan Waters (1987: 8) cite to have influenced the emergence of ESP has less to do with linguistics and more to do with psychology. Rather than simply focusing on the method of language delivery, more attention is given to the ways in which the learners acquire the language and the differences in the ways the language is acquired. The learners are seen to employ different learning strategies, use different skills, enter with different learning schemata, and be motivated by different needs and interests. Therefore, focus on the learners’ needs become equally paramount to the methods employed to disseminate linguistic knowledge. As such, designing specific courses to meet the individual needs is a natural extension of the “learner-centred” or “learning-centred” perspectives of ESP.

2.5 TYPES OF ESP

David Carver (1983: 131-137) identifies three types of ESP: English as a Restricted Language (ERL), English for Academic and Occupational Purposes (EAOP), and English with Specific Topics (EST). The language used by air traffic controllers or by waiters are examples of English as a restricted language.
Ronald Mackay and Alan Mountford clearly illustrate the difference between the restricted language and the language with this statement (1978: 4-5):

The language of international air-traffic control could be regarded as ‘special’, in the sense that the repertoire required by the controller is strictly limited and can be accurately determined situationally, as might be the linguistic needs of a dining–room waiter or air-hostess. However, such restricted repertoires are not languages, just as a tourist phrase book is not grammar. Knowing a restricted ‘language’ would not allow the speaker to communicate effectively in a novel situation, or in contexts outside the vocational environment (1978: 4-5).

The second type of ESP is English for Academic and Occupational Purposes. David Carver (1983: 131-137) indicates that this English should be at the heart of ESP although he refrains from developing it any further. Tom Hutchinson and Alan Waters (1987: 16-18) on the other hand, have developed a “Tree of ELT” in which the subdivisions of ESP are clearly illustrated. ESP is broken down into three branches: English for Science and Technology (EST), English for Business and Economics (EBE), and English for Social Studies (ESS). Each of these subject areas is further divided into two branches: English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). An example of EOP for the EST branch is “English for Technicians” whereas an example of EAP for the EST branch is “English for Engineering Studies.”
The above explanation can be presented as follows in the graph shown below:

**Figure No.1**

1. **English as Lingua Franca (EFL)**
2. **English as International Language (EIL)**
   - **English for General Purpose (EGP)**
   - **English for Specific Purpose (ESP)**
     - **English for Science and Technology (EST)**
     - **English for Business and Economics (EBE)**
     - **English for Social Studies (ESS)**
       - **English for Academic Purpose (EAP)**
       - **English for Occupational Purpose (EOP)**
         - **English for Academic Purpose (EAP)**
         - **English for Occupational Purpose (EOP)**
Tom Hutchinson and Alan Waters (1987: 16) do note that there is no clear-cut distinction between EAP and EOP on the basis of the considerations that,

1. People can work and study simultaneously; and that,

2. It is also likely that in many cases the language learnt for immediate use in a study environment will be used later when the student takes up, or returns to, a job.

Perhaps, this explains the rationale for categorising EAP and EOP under the same type of ESP. It appears that the end purposes of both EAP and EOP are the same: employment. This view cannot be contested. However, despite the end purpose being identical, the means taken to achieve the end is very different, indeed. One has no other choice than to contend that EAP and EOP are different in terms of focus on Jim Cummins’ notions of cognitive academic proficiency versus basic interpersonal skills (1979: 121-129).

The third and final type of ESP is English with specific topics. It is only here where emphasis shifts from purpose to topic. This type of ESP is uniquely concerned with anticipated future needs of English; for example, for scientists requiring English for postgraduate studies, attending conferences or working in foreign institutions. However, it is possible to argue that this is not a separate type of ESP. Rather it is an integral component of ESP courses or programmes which focus on situational language. This situational language has been determined based on the interpretation of results from needs analysis of authentic language used in target workplace settings.

2.6 CHARACTERISTICS OF ESP COURSES

The characteristics of ESP courses identified by David G. Carter (1981: 167) are discussed here. He states that there are three features common to ESP courses:
(a) Authentic Materials;
(b) Purpose-Related Orientation; and
(c) Self-Direction.

These features of ESP courses are indeed useful in attempting to formulate one’s own understanding of ESP. If one revisits Tony Dudley-Evans’ (1998: 8-29) claim that ESP should be offered at an intermediate or advanced level, the use of Authentic Learning Materials is entirely feasible. The use of authentic content materials, modified or unmodified in form, is indeed a feature of ESP, particularly in self-directed study and research tasks. For Language Preparation, for Employment in Science and Technology, a large component of the student evaluation is based on an independent study of an assignment in which the learners are required to investigate and present an area of interest. The students are encouraged to conduct research using a variety of different resources, including the Internet.

On the other hand, Purpose-Related Orientation refers to the simulation of communicative tasks required of the target group, such as the student simulation at a conference poster-presentation, paper-presentation etc. Students were involved in the design and presentation of a unique product, including market research, pamphlets and logo creation. The students were further trained in presenting their final products before an invited audience, in an ESL classroom. A special programme was designed to improve their Listening Skills. They were asked to practise listening skills, such as listening with empathy, and then employ their newly acquired skills in a field-trip to a local Community Centre where they were paired-up with English-speaking residents.
Finally, in the words of David Carter (1981: 134), Self-Direction is a characteristic of ESP courses in that “the point of including self-direction . . . is that ESP is concerned with turning learners into users.” In order to have a sense of self-direction, the learners must have a certain degree of freedom to decide when, what, and how they will study. There must also be a systematic attempt by teachers to teach the learners how to learn by teaching them learning strategies.

2.7 FORMULATION OF APPROACHES TO ESP

The approaches in ESP are formulated on the basis of five conceptions in ESP. John Malcolm Swales (1990) uses the term “enduring conceptions” to refer to the following:

1. Authenticity
2. Research-Base
3. Text
4. Need
5. Learning Methodology

The main consideration in ESP according to Bernard Coffey (1984) is that of authenticity. It includes authentic texts and authentic tasks. Swales, in explaining what is meant by the research-base of ESP, reviews the ESP literature and observes a trend towards papers that rely on some kind of data-base (textual or otherwise). In addition, Peter Strevens (1980: 105-121) alludes to the importance of the “specific language” of ESP in *Functional Englishes*. That is, only those items of vocabulary, patterns of grammar, and functions of language which are required by the learner’s purposes are included in ESP. Peter Strevens also alludes to the importance of learner needs in discussions of ESP. Finally, ESP draws on the methodology or learning theories which
are appropriate to the learning teaching situation. In other words, Specific Purpose Language Teaching (SPLT) is not in itself a methodology. According to Peter Strevens (1988: 39-44), this characteristic of ESP makes the materials both more relevant and more interesting to the student due to the varied and ingenious exploitation of the opportunities provided by ESP settings.

2.7.1 Origin of Five Major Approaches to ESP

These five conceptions have dual and potentially conflicting origins in both the real world (the “target situation” of the ESP) and in ESP pedagogy. It is therefore crucial to discuss each of them in an attempt to survey the development and directions of ESP as it has evolved. Such a survey will identify five major approaches to ESP, each of which has focused on one of the major conceptions and thus contributed to the growth of ESP itself. However, it is also evident that as each approach to ESP has evolved; its particular enduring conception has also evolved, bringing ESP practitioners towards their current thinking in each of the five areas.

The five major approaches to ESP are:

1. Skills-Based Approach
2. Register Analysis Approach
3. Discourse Analysis Approach
4. Learning-Centered Approach
5. Communicative Approach

2.7.1.1 Skills-Based Approach to ESP

Skills-Based Approach to ESP has enlarged the conception of authenticity in two principal ways. First, authenticity of text is both broadened to include texts other than
written texts and narrowed to differentiate between different types of texts generated by each skill. Material developers take the skills priorities of the students into account to create appropriate ESP teaching materials. Reading is specifically of prime importance. Reading, for example, could be sub-divided into reading reports, reading technical journals, reading instruction manuals, etc. Secondly, the conception of authenticity is enlarged to embrace authenticity of the task. In effect, this means designing tasks requiring the students to process texts as they would in the real world. In Keith Morrow’s (1977: 13-14) words, ESP learners are required to use ESP materials which employ the same skills and strategies as would be required in the target situation.

2.7.1.2 Register Analysis Approach

The second conception is that of the Register Analysis Approach. It has developed out of the need for a research base for ESP. Michael A.K. Halliday, Amos McIntosch and Peter Strevens (1964: 266) are the first scholars who have pointed out the importance of, and the need for, a research base for ESP, set out in one of the earliest discussions of ESP. This is a call for a programme of research into ESP registers which is taken up by several early ESP material writers, such as Herbert or Ewer and Latorre, who have analysed large corpora of specialist texts in order to establish the statistical contours of different registers. Ewer, J. R. and Latorre, G. put it the following way:

In order to get a working idea of what this basic language consisted of, a frequency analysis of the English actually used by scientific writers was required. . . . In subject, it covered ten main areas of science are represented. They cover the main types of scientific writing i.e. instructions, descriptions, explanations, abstracts or sum-up and a large number of individual disciplines from Anatomy to Volcanology (1969: 95)
The principal limitation of this approach is not its research base but its conception of text as register, restricting the analysis to the word and sentence levels as register is invariably defined in these terms. The procedure adopted for the analysis is twofold. The main structural words and non-structural vocabulary are identified by visual scanning. For the main sentence patterns, a small representative sample count is made.

During the 1990s there were a number of ESP projects which grew out of concerns for international safety and security. The first of these is SEASPEAK. It is a practical project in Applied Linguistics and Language Engineering. According to Peter Strevens and Johnson (1983: 123-129) SEASPEAK is the establishment, for the first time, of an International Maritime English. SEASPEAK was published in 1987-88 and followed by AIRSPEAK (1988) and POLICESPEAK (1994), with RAILSPEAK in preparation. Each of these projects involved a substantial research phase with the cooperation of linguists and technical specialists. The NEWSPEAK research shared the large-scale base of the Register-Analysis Approach but the principal advance is that it is now applied to a more sophisticated, four-level concept of text: purposes of maritime communication, operational routines, and topics of maritime communication and discourse procedures. Although register analysis remains small-scale and restricted to native-speaker encounters, later research demonstrated the gap between ESP material designers’ intuitions about language and the language actually used in ESP situations.

2.7.1.3 Discourse Analysis Approach

The reaction against Register Analysis in the early 1970s concentrated on the concept of text rather than the lexical and grammatical properties of register. The
approach is clearly set out by two of its principal advocates, Allen and Widdowson as follows:

One might usefully distinguish two kinds of ability which an English course at ESP level should aim at developing. The first is the ability to recognise how sentences are used in the performance of acts of communication, or the ability to understand the rhetorical functioning of language in use. The second is the ability to recognise and manipulate the formal devices which are used to combine sentences to create continuous passages of prose. One might say that the first has to do with rhetorical coherence of discourse, the second with the grammatical cohesion of text (1974).

In practice, however, the Discourse-Analysis Approach has tended to concentrate on “how sentences are used in the performance of acts of communication” and to generate materials based on functions. Such functions included definitions, generalisations, inductive statements, and deductive statements, descriptions of processes, descriptions of sequences of events and descriptions of devices. The main shortcoming of the approach is that its treatment remained fragmentary, identifying the functional units of which discourse is composed at utterance level, but offering limited guidance on how functions and utterances fit together to form longer texts: “We are given little idea of how these functions combine to make longer texts,” as Pauline C. Robinson has said (1991).

As an offspring of Discourse Analysis, the Genre-Analysis Approach came to make up for this shortcoming. This approach considers text as a total entity rather than a collection of isolated units. Tony Dudley–Evans conveys the idea in the following way:

If we are to teach the writing of certain very specific texts such as . . . the business or technical report, we need a system analysis that shows how each type of text differs from other types (1987: 1-9).
According to Keith Johnson (1996) this is achieved by seeking to identify the overall pattern of the text through a series of phases or “moves.” The major difference between discourse analysis and genre analysis is that, while discourse analysis identifies the functional components of text, genre analysis enables the materials writer to sequence these functions into a series to capture the overall structure of such texts. The limitation of Genre-Analysis has been a disappointing lack of application of research to pedagogy. There are few examples of teaching materials based on Genre-Analysis Research.

ESP is driven by specific learning needs of the language learner. The first step towards ESP research is to identify the specific learning needs of students. Before making a Needs Analysis, however, one must answer the following crucial question: Will the student be able to use English effectively even after his course study. If the answer is “no”, then ESP is not a reasonable option for the English language programme. The University will have to improve the programme through other means. If the answer is “yes”, however, then ESP is probably the most intelligent option for the curriculum at tertiary level. The Needs Analysis feature of ESP lays a solid foundation for a stable ESP programme. ESP also begins with some basic questions to survey what will be needed.

1. Will students use English only during their study period or in their jobs too after graduation?
2. In what situations?
3. For what purposes?
4. What language skills will be required (reading, writing, listening, speaking)? What are the significant characteristics of the language in these situations (lexicon, grammar, spoken scripts, written texts, other characteristics)?
5. What extra linguistic knowledge of academia, specific disciplines, specific vocations, or specific professions is required for successful English usage in these areas?

The need for Needs Analysis is firmly established in the mid 1970s as course designers came to count learners’ purposes rather than specialist language as the driving force behind ESP. Early instruments, notably John Munby’s (1978) model, established needs by investigating the target situation for which the learners were being prepared. Munby’s model clearly established the place of needs as central to ESP; it indeed is the necessary starting point in materials or course design. However, his model has been widely criticised for two apparently conflicting reasons:

1. Its over-fullness in design, and
2. What it fails to take into account (that is, socio-political, logistical, administrative, psycho-pedagogic and methodological considerations).

To counter the shortcomings of Target-Situation Needs Analysis, various forms of pedagogic needs have been identified to give more information about the learner and the educational environment.

Fred Chambers defines the latter as follows:

By the language I mean the language of the target situation. Thus, Needs Analysis should be concerned primarily with the establishment of communicative needs and their realisations, resulting from an analysis of the communication in the Target Situation – what I will refer to from now on as Target Situation Analysis (TSA) (1980: 29-30).

The conception of pedagogic Needs Analysis came to set off Target–Situation Needs Analysis. The forms of Needs Analysis should be seen as complementing Target-
Situation Needs Analysis, rather than being alternatives. This includes three types of analyses:

a. Deficiency Analysis;
b. Strategy Analysis; and,
c. Means Analysis.

Deficiency Analysis gives information about what the learners’ learning needs are i.e., and in which of their target-situation needs the learners are lacking or feel that they lacking. This view of needs analysis gains momentum when one considers the point that the question of priorities is ignored by standard needs analysis. In discussing learners’ perceptions of their needs, deficiency analysis takes into account ‘lacks’ and ‘wants’, as well as objective needs of the learners (1982).

Strategy Analysis seeks to establish how the learners wish to learn rather than what they need to learn. By investigating the learners’ preferred learning styles and strategies, the Strategy Analysis provides a picture of the learner’s conception of learning.

Means Analysis, on the other hand, investigates precisely those considerations that John Munby excluded. These relate to the educational environment in which the ESP course is to take place (1989: 79-90).

2.7.1.4 Learning-Centred Approach

The attention to strategy analysis gives rise to a new generation of ESP materials which is founded as much on conceptions of learning as on conceptions of language or conceptions of need. As Tom Hutchinson and Alan Waters (1987: 14) have rightly put it,

Our concern in ESP was no longer with language use although this would help to define the course objectives. The concern was rather with language learning. We cannot simply assume that describing and exemplifying what
people do with language would enable someone to learn it. . . . A truly valid approach to ESP would be based on an understanding of the processes of language learning (1987: 14).

Tom Hutchinson and Alan Waters called this approach the Learning-Centred Approach and stressed the importance of a lively, interesting and relevant learning teaching style in ESP materials. The first ESP materials to adopt a conscious model of learning were probably those of the Malaysian UMESPP Project in the late 1970s. The approach has received its widest publicity in the papers and materials of Hutchinson and Waters, and, more recently, Mary Waters and Alan Waters (1992: 264-273).

In sum, the five conceptions underlying ESP have endured, although there have clearly been points at which they have taken new directions as they have evolved. While these conceptions have now reached a level of maturity which serves ESP well, there continue to be tensions arising from their application to practical materials design. In part, these tensions derive from a conflict between real-world and a pedagogic conception, which frequently involves a “trade-off” between the two. These tensions include some of the following areas: target needs versus pedagogic needs, target authenticity versus materials design, language as text versus pedagogic texts, method/learning style versus content-driven materials, and research-data findings versus materials design. It may be that these tensions are inevitable and irreconcilable. However, ESP teachers and materials designers should be aware of them and make informed decisions based on their knowledge of the language, the target situation, the educational environment, and the learners. The same informed decisions are also needed when LSP testers set out to develop LSP tests.
2.7.1.5 Communicative Approach

The recent approach that emerges from the concept of authenticity in the development of ESP is that of Communicative Approach. The first generation of ESP materials that appeared in the mid-1960s took skills as their principal means of selection, arguing that ESP teachers would need to establish the skills priorities of students in order to develop appropriate ESP teaching materials. The definition of skill is somewhat broad, establishing little more than the ranking of the four usual language skills of Reading, Writing, Listening and Speaking (LSRW). Almost all materials consist of collections of specialist texts with accompanying comprehension and language exercises. As R.A. Close (1992) rightly argues that the conception of authenticity is central to the approach taken to develop language skills.

Authenticity has gained so much significance that even today most of ESP programmes focus on developing communicative competence in specific fields such as aviation, business, technology etc. Some courses prepare students for various academic programs. For example, Yale University offers a seminar for Graduate Teaching Assistants (GTA) that emphasises training in public speaking skills and uses videos to improve teaching and lecturing styles. Others prepare students for work in disciplines such as Law, Medicine, Engineering, Tourism or Graphic Design. Many courses now focus on the use of the Internet. Still there is a gap between students’ real life needs and what a common ESP course book can suggest. One inherent flaw of this short-sighted view of authenticity is that very often, instead of conducting interviews with specialists in the field or analysing the language that is required in one’s own profession or even conducting students’ needs analysis, many ESP teachers become dependent only on the
published textbooks available, which may be out of date or may lack in providing the latest information in the field as the growth in any field, at present is happening faster than in the past. The only remedy to counter this shortcoming is that the teacher should be provided with the changes in the field and also be trained from time to time.

This conception of authenticity is limited in several ways; it is confined to authenticity of text, with no differentiation between different kinds of scientific and technical texts. A closer examination of the texts reveals that authenticity is being contrasted with simplification. However, it is also apparent that authenticity did not exclude editing, by omitting long sections, especially if they involved complex language.

**2.8 THE NEED FOR ESP TESTING**

In the rapidly changing present world when teaching English for Specific Purposes (ESP) has grown to become one of the most prominent areas of teaching English as a Foreign Language (EFL), ESP practitioners face new opportunities and challenges. For non-English speakers the ability to speak more than one language (English along with the Mother tongue) becomes imperative to assess the language abilities of second language learners. In the classroom, assessment can be seen as an ongoing process, in which the teacher uses various tools to measure the progress of the learners. Among those tools are portfolios, self-assessment, and, of course, tests. If assessment can be seen as a movie, since it is a continuous process, then a test is a still photograph; it gives a picture of the learner’s language at a particular point in time. If used properly, these tools can help the teacher develop a full picture of the learner’s progress. It is important to note that all types of testing and assessment are important in gathering information about students’ abilities.
Testing has traditionally been the most widely used assessment tool in the classroom, and in many classrooms, it continues to be so. Moreover, testing has applications outside of the classroom. Foreign language programmes test students for placement; colleges and Universities test students for credit; and, employers test the abilities of prospective employees. In any testing situation, it is important to consider which of the four skills (Speaking, Listening, Reading, and Writing) needs to be assessed, who will be taking the test, and for what purposes the test results will be used. Clearly, a test which is appropriate in one situation may be inappropriate in another: a test designed to measure the reading abilities of elementary school learners will not be appropriate for college placement. Thus, when choosing a test to use, it is important to define the testing situation, and then to find or develop a test that suits the situation. It is also important to know the reliability and validity of the test, especially if the test is to be used for high-stakes purposes, such as entrance into a college or University. Reliability measures the consistency of the test; validity is the extent to which the test measures what it claims to measure. Large scale standardised tests have more reliability and validity requirements than classroom tests, and many books, articles, research projects, and other materials have been devoted to this issue.

The need for tests of ESP has grown out of the conceptions that function as the pedestals upon which ESP stands. As it is stated above, an analysis of the communicative needs of the students is the core of ESP. Identifying the language targets toward which the students must aim is, in turn, the basis of such needs analysis. It does not, however, comprise the whole of needs analysis.
ESP practitioners must also discover:

1. Where ESP students currently stand;

2. How much distance lies between them and the target before they can begin to determine;

3. Where instruction is necessary many good publications exist on language testing; however, it should be noted that the goal of testing for ESP instruction is to determine - what portions of the target language the students do not know; it is not meant to test their knowledge of EGP. TOEFL and other popular tests of English language proficiency can be, as they claim to be, useful for testing how much General English students know.

However, they cannot provide adequate data on the student competence in the spoken activities and written texts characteristic of a specific discipline or vocation, such as Electronics, Accounting, and Medicine or Engineering. The vocabulary and grammatical or rhetorical structures that surface most frequently in many work situations lie beyond the narrow range of English tested in popular standardised tests.

These concerns are the backbones of ESP tests. Specifically developed ESP tests that could be used for purposes of selection, achievement, and content-area proficiency would, needless to say, intrigue many. As Dan Douglas (2000) argues, the rapid interest in performance assessment made ESP tests even more intriguing. Ethical considerations as well as the notion of authenticity in testing provided further support for the claim that ESP tests are not only needed but also vital. These as well as many practical considerations such as economy, time limits and the rapid developments of scientific knowledge made ESP tests even more of vital importance. Industry is needed to select
the fittest students for their future job vacancies. University departments are needed to measure exactly “how fit” their students are. ESP teachers need to know how much their students have attained the objectives of ESP courses. Policy makers also need to have an exact estimation of the amount of money they are supposed to invest in language programs, and also a precise estimation of the amount of return they can hope to gain.

2.9 THE NEED FOR RESEARCH INTO ESP TESTING

The rapid expansion in ESP teaching is not accompanied by a similar increase in ESP testing. Perhaps, the earliest attempts at testing ESP date back to the time when the ELTS were launched. At that time, in 1980, there had been little or no research into the validity of giving academic English proficiency tests based on different subject areas. John Charles Alderson (1981) in a discussion on ESP testing questioned many of the principles behind this approach. He agreed that since different University Departments placed different demands on their students, there are some good arguments for including ESP tests in an EAP test battery. He felt that a comparison between performance on academically specific tests and the communicative needs of the relevant area might provide useful diagnostic information. He also accepted that ESP tests would have really high face validity for both content-area students and University lecturers. However, he questioned whether it was possible to produce a test which would be equally suitable for students in all branches of a discipline. For example, he wondered whether it would be possible to have a test for Engineers and whether they would have the same level of appropriacy for all Engineers, regardless of their specialisation. This highlights one of the main difficulties with English for Specific Academic Purposes (ESAP) testing.
Another difficulty with ESP tests is delineated in Alderson’s question “How specific is specific?” (1981). Since at that time it is usually impossible to give each student a test which is tailor-made for a unique set of circumstances, any ESP test has to be a compromise; and, in the case of EAP, where many disciplines would be considered less than one broad subject area. These areas would cover so wide a field that some students would not fit into any of the groupings. John Charles Alderson (1981: 133) cited the example of a student in urban studies who would not know whether to choose a test in science or in social studies.

In relation to the ESP tests, John Charles Alderson (1988b) also asked what one would mean by the term “general text”. General to whom? Were “general” texts so neutral that their subject matter was unfamiliar to all or were they intended to be neutral, but actually based on Humanities-based topics which might turn out to be more appropriate for Humanities students than for Science students?

Until there were answers to the above questions, John Charles Alderson (1981) wondered how much point there was in having specific EAP tests, since they were time-consuming and expensive to produce, and since it was so difficult to make equivalent tests in different subject areas genuinely parallel. The only way one could know, Alderson (1981: 133) said, was to carry out empirical studies. Although there has been some response to John Charles Alderson’s plea (1981) for more research since 1981, there is still room, and need, for further research.

2.9.1 Statement of the Problem

Over the past two decades, there have been several studies on the testing approval to be employed to test English proficiency. Three articles by John Charles Alderson and
Alexander Hugh Urquhart (1983) aroused considerable interest and led to several follow-up studies. These articles described three studies carried out with students attending English classes in Britain in preparation for British Universities.

In each, John Charles Alderson and Alexander Hugh Urquhart (1982: 192-204) compared students’ scores on reading texts related to their own field of study with those on texts in other subject areas. The students’ scores on the modules were found to be somewhat contradictory. On one hand, for example, science and Engineering students taking the technology module of IELTS were found to be facing better than the Business and Economics students as well as the Humanities students, who took the same test. On the other hand, the Business and Economics students fared no better than the Science and Engineering group on the Social Studies module. Alderson and Urquhart conclude that background knowledge has some effect on test scores, but that is not always consistent, and that their future studies should take into account linguistic proficiency and other factors as well.

Along the same lines, Miriam Shoham, Arna S. Peretz, and Renee Vorhaus (1987: 81-88) conclude that the students in the Biological and Physical Sciences do better when dealing with the scientific texts, the Humanities and Social Science students did not far better in the tests in their own subject area. In a similar study, Arna S. Peretz and Miriam Shoham (1990: 447-455) similar results. Their explanation for this is that the texts are only indirectly related to the students’ specialised fields of study, and suggested that this might support Marjorie Lipson’s suggestion that “a totally unfamiliar text is often easier to comprehend than a text with a partially familiar content” (1984: 760-764). This contention of Marjorie Lipson is indeed radical. If supported by further research, it would
be an almost unassailable reason for dropping ESP testing. If Marjorie Lipson’s idea were taken to its logical conclusion, of course, proficiency tests would have to contain materials outside any candidates’ field of study.

2.10 RESEARCH QUESTIONS AND HYPOTHESES

The present study is an attempt at answering a few questions that pertain to the students’ performance on LSRW skills in ESP (English Language for Specific Purposes) contexts. The objectives of the investigation can be expressed in the following research questions:

1. What are the students’ needs to learn Technical English keeping in view the global context?

2. Is there a correlation existing between the learners’ needs and the syllabus which is being used to teach Technical English?

3. What is the significance of the existing syllabus and is there a need for significant change?

4. What is the role of ESP course designer and materials producer in this context?

All these questions can be answered in terms of the following hypotheses:

H1. Majority of the students will have stronger needs for learning Technical English given to the global context.

H2. There has been a negative correlation between the syllabus and the learners’ needs.

H3. The changes required in the existing syllabus are hence utmost significance.
H4. The role of the curriculum developer in an age of enormous and unprecedented expansion in scientific and technical knowledge is crucial to language-learning.

Education at present has recognized the need for making use of the latest technology for better results. This could be seen in the introduction of the language labs in the Engineering colleges to impart various language and allied skills to the prospective profession also. Still, it is the textbook which is supposed to carry on the aims and objectives of the syllabi. Hence a critical appraisal of the textbooks used in different Universities becomes imperative.

2.11 THE ROLE OF TEXTBOOK IN THE ENGLISH CLASSROOM

English language instruction has many important components but the essential constituents in many English classrooms and programmes are the textbooks and instruction materials that are often used by language instructors.

As Tom Hutchinson and Ennice Torres suggest;

The textbook is an almost universal element of [English language] teaching. Millions of copies are sold every year, and numerous aids projects have been set up to produce them in various countries. No teaching-learning situation, it seems, is complete until it has its relevant textbook (1994: 315)

Other theorists such as Leslie Sheldon agree with this observation and suggest that,

Textbooks not only represent the visible heart of any ELT program but also offer considerable advantages - for both the student and the teacher – when they are being used in the ESL/EFL classroom (1998: 237).

John Haycroft for example, suggests that one of the primary advantages of using textbooks is that they are psychologically essential for students since their progress and
achievement can be measured concretely when they use them. Secondly, as John Sheldon has pointed out, students often harbour expectations about using a textbook in their particular language classroom and programme and believe that the published materials have more credibility than teacher-generated or “in-house” materials. Thirdly, as Robert O’Neill has indicated, the textbooks are generally sensitive to students’ needs, even if they are not designed specifically for them, they are efficient in terms of time and money, and they can and make room for adaptation and improvisation. Fourthly, textbooks yield a respectable return on investment, are relatively inexpensive and involve low lesson preparation time, whereas the teacher-generated materials can be defective in time, cost and quality. In this way, the textbooks can reduce the potential occupational overload and allow teachers the opportunity to spend their time undertaking more worthwhile pursuits.

A fifth advantage identified by Alan Cunningsworth is the potential which the textbooks have for serving several additional roles in the ELT curriculum. He enumerates the advantages of having a textbook:

- They are an effective resource for self-directed learning;
- An effective resource for presentation material;
- A source of ideas and activities;
- A reference source for students;
- A syllabus where they reflect pre-determined learning objectives; and,
- Support for less experienced teachers who have yet to gain in confidence.
Although some theorists have alluded to the inherent danger of the inexperienced teacher who may use a textbook as a pedagogic crutch, such an over-reliance may actually have the opposite effect of saving students from a teacher's deficiencies. Finally, Hutchinson and Torres have pointed out that the textbooks may play a pivotal role in innovation. They suggest that textbooks can support teachers through potentially disturbing and threatening change processes, demonstrate new and/or untried methodologies, introduce change gradually, and create scaffolding upon which the teachers can build a more creative methodology of their own. However, a textbook is just a take off point for an imaginative and committed teacher; in the least, a student would get at least what is given in the textbook, if not more.

2.11.1 Importance of Text Analysis

Although handling the text in the classroom is time-consuming, text responses complement the data, providing more varied and detailed information about what respondents think, feel, and do. Text Analysis for Surveys is that it gives the ability to analyse respondents’ attitudes and opinions. As a result, one gains a clearer understanding of what the pupil likes or doesn’t like and why. When one understands what people think and feel in their own words, one can draw more reliable conclusions about their future behaviour and use that predictive insight to meet their needs more successfully.

Text analysis is an interactive process enabling the teacher to know the major themes grasped by respondents, and also know how many respondents could mention at least one theme, whereby an insight into the respondents’ beliefs, attitudes, or behaviours can be obtained. When one works with the survey responses, one is likely to re-extract
concepts and re-categorise responses using different category definitions or coding schemes, different term or synonym definitions or different groupings of responses. One may repeat this process several times before one is satisfied with the results.

2.11.2 Purpose of a Textbook

A textbook is defined as a book used as a standard work for the students of a particular subject. It is usually written specifically for a particular purpose, as a manual of instruction in any branch of study, especially as a work organised by scholars who usually have taught courses on the subject/s dealt with in a particular textbook.

2.11.3 Advantages of Using a Textbook

When a question is asked how important a textbook is, many answers can be offered. The following are some advantages of using a textbook. A textbook provides a clear framework, a sense of structure; progress to be made and goals to be reached are provided to both the teachers and the learners.

In many places a textbook serves as a syllabus. It is adapted systematically as follows:

- A carefully planned and balanced selection of language content will be covered.
- **Readymade texts and tasks**: The textbook provides the text and various tasks are set based on it.
- **Economy**: A textbook is the cheapest way of providing learning material for each learner.
- **Convenience**: It is a convenient package for the students to use.
Guidance: For teachers who are inexperienced or occasionally unsure of their knowledge of the language, the textbook can provide useful guidance and support.

Autonomy: The learner can use the textbook to learn new material, review, and monitor progress with some degree of autonomy.

2.12 TOOLS USED FOR TEXT ANALYSIS OF SOCIAL SCIENCES

Researchers usually use two types of investigation processes. First is quantitative research, which employs numerical indicators to ascertain the relative size of a particular communication phenomenon. The second type of investigation process is qualitative research, which employs symbols and words to indicate the presence or absence of phenomena or to categorize them into different types. Quantitative and qualitative observations provide researchers with different ways of operationalizing and measuring theoretical constructs and practical concepts. While quantitative methods can provide a high level of measurement precision and statistical power, qualitative methods can supply a greater depth of information about the nature of communication processes in a particular research setting.

2.12.1 Features of Quantitative Method

As Gareth Morgan and Linda Smircich (1994: 315) state, the functional or positivist paradigm that guides the quantitative mode of inquiry is based on the assumption that social reality has an objective ontological structure and that individuals are responding agents to this objective environment. As Catherine Cassell and Gillian Symon (1988: 237) have rightly put it in their article, the assumption behind the positivist
paradigm is that there is an objective truth existing in the world that can be measured and explained scientifically. The main concerns of the quantitative paradigm are that measurement is reliable, valid, and generalizable in its clear prediction of cause and effect. In this connection, Mary John Smith (1998) in his book *Contemporary Communication Research Methods* mentions quantitative research involves counting and measuring of events and performing the statistical analysis of a body of numerical data.

Being deductive and particularistic, quantitative research is based upon formulating the research hypotheses and verifying them empirically on a specific set of data said by Chava Frankfort-Nachmias and David Nachmias in their book *Research Methods in the Social Sciences*. Related this statement Stella Ting-Tomey’s idea represents that scientific hypotheses are value-free; the researcher's own values, biases, and subjective preferences have no place in the quantitative approach. Researchers can view the communication process as concrete and tangible and can analyze it without contacting actual people involved in communication. The quantitative method allowed this research to collect the data from the respondents in the numerical format, to exercise objective judgment, to achieve a high level of reliability and accuracy.

2.12.1.1 Strengths of Quantitative Method

The strengths of the quantitative method can be enumerated as follows:

- According to Chava Frankfort-Nachmias and David Nachmias, the main strength of the quantitative method is stating the research problem in very specific and set terms;
• clear and precise specification of both the independent and the dependent variables under investigation;
• can follow firmly the original set of research goals, arrive at more objective conclusions, test hypothesis and determine the issues of causality;
• in the words of Howard Llord Balsley, achieving high levels of reliability of gathered data through controlled observations, laboratory experiments, mass surveys, or other form of research manipulations are possible in this method;
• eliminating or minimizing subjectivity of judgment is another important strength, as mentioned by Daniel Kealey and David Protheroe;
• allows for longitudinal measures of subsequent performance of research subjects.

2.12.1.2 Weaknesses of Quantitative Method

The weaknesses of the quantitative method are also noteworthy:

• Fails to provide the researcher with in depth information on the context of the situation where the studied phenomenon occurs;
• Lack of much control the environment where the respondents provide the answers to the questions in the survey;
• Outcomes are limited to only those outlined in the original research proposal due to closed type questions and the structured format;
• Does not encourage the evolving and continuous investigation of a research phenomenon.

The present research, however, has employed both the methods; hence it has benefited from the strengths both these methods and tried to overcome the limitations.
2.12.2 Features of Qualitative Method

As Gareth Morgan (1980: 491-500) states, qualitative research shares the theoretical assumptions of the interpretative paradigm, which is based on the notion that social reality is created and sustained through the subjective experience of people involved in communication. In this connection David Fryer throws more light on qualitative research. They are concerned in their research with attempting to accurately describe, decode and interpret the meanings of phenomena occurring in their normal social contexts. Further he extends his statement to say that the researchers operating within the framework of the interpretative paradigm are focused in investigating the complexity, authenticity, contextualization, shared subjectivity of the researcher and the researched, and minimization of assumptions (1991: 3-6).

Qualitative research in general is more likely to take place in a natural setting. In the view of John Van Maanen, topics for study do focus on everyday activity as “defined, enacted, smoothed, and made problematic by persons going about their normal routines” (1983). As Catherine Cassell and Gillian Symon (1994: 1-13) would consider, qualitative research is less likely to impose restrictive apriori classification on the collection of data. It is less driven by very specific hypotheses and categorical frameworks and more concerned with emergent themes and idiographic descriptions.

Extending the fundamental beliefs of the interpretative paradigm, one can name three characteristics of qualitative inquiry. Firstly, qualitative research is the study of symbolic discourse that consists of the study of texts and conversations. Secondly, qualitative research is the study of the interpretive principles that people use to make sense of their symbolic activities. Thirdly, qualitative research is the study of contextual
principles, such as the roles of the participants, the physical setting, and a set of situational events that guide the interpretation of discourse (Stella Ting-Toomey) (1984: 169-184).

2.12.2.1 Strengths of Qualitative Method

The strengths of the qualitative method are as follows:

- Obtain a more realistic feel of the world that cannot be experienced in the numerical data and statistical analysis used in quantitative research;
- possess flexible ways to perform data collection, subsequent analysis and interpretation of collected information;
- Robert Bogdan and Steven J. Taylor provide a holistic view of the phenomena under investigation in their book *Introduction to Qualitative Research Methods* (1975);
- able to interact with the research subjects in their own language and on their own terms as stated by Jerome Kirk and Marc Miller;
- has descriptive capability based on primary and unstructured data.

2.12.2.2 Weaknesses of Qualitative Method

Qualitative method also has some inherent weaknesses:

- Departs from the original objectives of the research in response to the changing nature of the context, as stated by Catherine Cassell and Gillian Symon;
- arrives at different conclusions based on the same information depending on the personal characteristics of the researcher;
- not upto the work in investigating causality between different research phenomena;
has difficulty in explaining the difference in the quality and quantity of information obtained from different respondents and arrives at different, non-consistent conclusions;

- requires a high level of experience from the researcher to obtain the targeted information from the respondent;

- lacks consistency and reliability because the researcher can employ different probing techniques and the respondent can choose to answer only a few queries and ignore others.

2.12.3 Quantitative versus Qualitative Text Analysis:

As William Paul Vogt (1993: 183-184) has opined there are two ways in which the social scientists distinguish quantitative from qualitative analyses. On the one hand, qualitative analyses can be differentiated from quantitative analyses according to the level of measurement of the variables being analyzed. Gilbert Shapiro and John Markoff (1997) argue, for example, that indiscriminate use of this quantitative – qualitative distinction has often resulted in the label, qualitative content analysis, being not only aptly applied to rigorous analyses of categorical data but also inappropriately applied to haphazard (and thus unscientific) analyses of such data. On the other hand, social scientists also distinguish their methods as quantitative or qualitative. In this connection, it is interesting to note Berg’s explanation on quantitative methods, which is more deductive, statistical, and confirmatory; qualitative methods are more inductive, non-statistical and exploratory. It is only according to this latter distinction that quantitative text analysis has been applied in this study (1995: 2-4).
Lyn Richards (2009: 38) has made an intriguing assertion: The distinction between quantitative and qualitative analysis reduces to one of ‘timing’. The idea here is, on the one hand, that quantitative researchers specify their measures and tests in advance; in truth confirmatory fashion they deduce hypothesis’ central concepts. On the other hand, quantitative researchers typically explore their data, applying one classification scheme after another, before settling on that scheme and deciding which in their view resonates best with the data.

**Employment of the quantitative & qualitative methods allows the researcher to:**

- state the research problem in very specific, definable, and set terms;
- specifies clearly and precisely the independent and the dependent variables;
- follows the original set of research goals;
- achieves high levels of reliability of gathered data, due to mass surveying;
- tests the research hypotheses;
- arrives at more objective conclusions, by minimising subjectivity of judgement;
- gives the scope to collect the primary data in a flexible, both standard and non-structured way that allowed emergence of new information and interpretations;
- interacts with the (i.e. teachers) research subjects in their own language and, in most of the cases, at their own work place;
- obtains a more realistic and hands-on feel of the world that cannot be experienced in the numerical data and statistical analysis used in quantitative research.
2.12.4 The Research Methodology Used in the Present Study

The present study has employed both quantitative and qualitative methods, endeavouring to use the strengths of each method. While the quantitative method helped the research to involve a good number of subjects and the various aspects of English Teaching in the Universities selected for study, the qualitative method has allowed the researcher to make an in-depth analysis of the responses of the subjects. It has also been observed that the target group turned out to be a suitable subject for qualitative analysis as they hail from professional colleges. They displayed a keen perception on the strengths and weaknesses of their system and provided the researcher a sharp analysis of various aspects of the teaching of English in their colleges.

Keeping in view, the strengths and weaknesses of the quantitative and qualitative methods, a questionnaire was prepared, and the opinion of the students was obtained. The questionnaire contains questions related to their parental background, the Board of Examination through which they had taken their school leaving certificates, etc. Students were asked to express their views on textbooks prescribed for study in terms of content, form, presentation and other aspects such as grammar and the four skills important they need.

2.13 SCOPE OF THE STUDY

In their introduction to Provocations, S. Marathe et al., argue that one’s job is not over if one has merely found fault with the status quo. Identifying the problems of a system has no value, unless it leads to reform for betterment of the system.

Some people think that their job is over if they have raised questions about the existing order. By simply saying that what exists is no good or even
harmful, they imagine that they have demolished it and repaired the damage. Nothing can be more naive (1993: 7).

Therefore, any thesis does not stop at the point of being a mere critique of the status quo; in addition to critiquing the existing scenario of teaching Technical English at Professional level, the thesis also makes a modest attempt at suggesting measures in the last chapter to better the status quo. The suggested measures are based not on theoretical speculation but on practical experience and the prolonged experiments and evaluation conducted for the technical students at Acharya Nagarjuna University College of Engineering and Technology, Jawaharlal Nehru Technological University (Kakinada), Koneru Lakshmaiah University and Vignan University, Guntur.

Due to practical limitations, the literature reviewed in this chapter has a limited scope. It only includes the most salient instances from among the rich repertoire available on ESP. For more information about any of the aspects of ESP teaching and testing, interested readers are invited to refer to the sources listed in the ‘reference’ section of this study. The next chapter would present a critical analysis of the syllabus and the course materials adopted in Acharya Nagarjuna University.