Chapter-Two

Review of Related literature

2.0 Introduction

The preceding chapter has already set the rational for this study. This chapter has systematically focused on the research works and studies, directly related to the context of the current study and thus has influenced the work of the researcher. Hence, this section critically addresses those critical presentations of some of the research works carried out both at Bangladesh and abroad in the areas of English language teaching learning practices, students’ academic and professional needs, existing ESP courses, teaching materials used in the engineering institutions.

The review of related studies encompassing English courses designed for engineering and similar professional learners brings to light the fact that none of the studies are complete in themselves. In most cases, often the interest of the learners lie elsewhere as the English teachers fail to develop their positive attitude and motivation towards English class. In most cases, it happens due to lack of professional expertise and lack of experience and awareness of the learners’ needs, background profile and the lack of awareness of the nature of learners’ field specialized areas, teachers fail to realize the gap between learners’ expectation and institutional reality. The following ESP studies reflect the existing English language teaching learning practices across the globe. Since teaching English language to learners of any discipline in higher education is meant for preparing them either for their academic or profession, the following reviews of literature related to the existing study have been segmented into various segments such as review of target situation needs,
English language course design for engineering and other professional learners, Students’ academic needs, English language needs of engineering students, learners’ active participation and increased motivation in ESP class, ICT in language learning in ESP class and ESP teachers’ professional needs. Henceforth most of the following studies address on the various types of needs engineering or technical students mostly prefer to have in their English pedagogy.

2.1 Review of Studies related to Target Situation Needs (TSA)

Engineering learners in Thailand have expressed their long term dissatisfaction over their ability to communicate in English (Wattanasakunpusakon, 1996; Kittidhaworn, 2001 as cited in Kaewpet, 2009). They have observed that ESP courses offered to engineering learners in their university in Thailand have not seriously considered their specific language and learning needs and thus they have emphasized to address those specific needs in their ESP curriculum.

Apart from this, only a few studies on needs analysis related to engineering learners are available, and most often the focus is on the problems and desires of the learners in English course rather than addressing the pragmatic needs in ESP courses and the means to address those needs (Ongsakul, 1984; Wittayapirak and Preechapanit, 1992 as cited in Sasidharan, 2012, p. 17). The type of ESP courses offered to these engineering students have not adequately addressed their specific target needs and hence they fail to satisfy the requirements of communication skills in work place and thus they remain a failure in their professional life.
In the similar tone, Illing (2001) has conducted a study “Wanted: Skills in Communication” in Australia. He has revealed his observations on the needs of communication skills of engineering graduates that most graduates feel that they have gained analytical and problem solving skills, subject specific knowledge, research and improved decision making abilities through their academic degrees. However, despite this, majority of the participants in the study have not expressed their satisfaction with their graduate degrees as it has not provided the following:

- Oral communication skills
- Awareness of the social implication of their disciplines and developments
- Management skills
- Understanding of others’ points of view and others’ cultures
- Confidence and competence to work in international environment

Illing (2001, p.24)

Though the study has its root in ESP in engineering context, there is a significant gap between the context of ESP in Bangladesh and that of Australia. Hence the findings and insights obtained from Illing’s (2001) study may not be exactly replicated in engineering universities of Bangladesh. However, the insights of this study can be partially adopted in the current context of the study.

Another study relevant to ESP has been carried out by Al-Tamimi and Shuib (2010) to investigate the relevant needs addressed in the English Language teaching learning practices of Petroleum Engineering students at Hadramout University of Sciences and Technology, Yemen. The researchers have used only questionnaire as data gathering tool for this study. They have adopted the Target Situation Analysis framework for their study.
A total of 81 students have been selected and surveyed for data collection purpose. It has been found that although students treat sub-skills of listening, reading, and writing to be most frequently used, they consider almost all the language skills to be important to acquire. Furthermore, most of the participants in the survey have felt that they cannot use English effectively and they have argued for continuous instruction and training to improve the proficiency in all the language skills. As for the questions pertaining to the relevance of the English Language course, students have reported that the English language course does not meet their language needs and the time allocated to the course is not sufficient to enable them to use the language efficiently. Moreover, it has also been found that the students prefer to take English for Occupational Purpose (EOP) courses. Thus, the researcher has suggested that ESP teachers should take students’ needs into consideration when designing English Language course by giving more emphasis to speaking and listening skills and thus the duration and number of English courses should also be increased.

According to Polack-Wahl (2000), for the success of engineering graduates in their workplace in the global context, oral communication and presentation skills are considered as one of the best career enhancers and to be the single biggest factor in determining a student’s success or failure in career.

In the similar fashion, Beder (2000) has emphasized on the relevance of the communication skills for the engineering graduates in the following statement:

“Skills such as problem solving, communication, interpersonal skills, critical and independent thinking skills should be nurtured in engineering education, not just as because these are the features and qualities that employers look for in engineering
graduates but because these should be treated as indispensible part of any tertiary education.” (Beder, 2000)

Hence, the valuable observations that Beder (2000) has made are completely absent in the English curriculum for engineers in Bangladesh and hence these skills should be incorporated in the English curriculum for engineering students in terms of priority.

In a similar situation, Riemer (2002) states that the concept of ESP will achieve more effective role in the education of engineering students by focusing on the learner’s attention on the particular terminology and communication skills required in the target profession. Hence the competencies and expertise chalk out as required English proficiency of engineering learners are spoken and written language fluency, regional/ national dialects, technical terminology and professional genre. The author also suggests that exercises and drills for engineering students should include both oral and written communication skills throughout the curriculum. Such skills may include presentation skills, group discussion and communication skills as part of the assessment procedures. Apart from this, Riemer (2002) observes that a range of skills is mandatory for engineers to maintain relevance with the global environment of the new millennium. In the same article, he reveals that in the context of Australia, communication skills are the vital component for this profession compared to the subject knowledge which has been equally recognized by the academics and industry. English language skills are also important given its widespread status across the globe as a lingua-franca. In fact, he has argued for developing an inclination for multilingualism for the engineers to be successful global engineers today. Reimer’s (2002) study has some limitations as he focused only on the target communication skills and
vocabulary to bring back the engineering students’ attention and motivation in ESP class. This study is of immense relevance to the present study and the areas that remained outside the scope of Reimer’s (2002) study can be complemented in this present study.

In the area of English teaching materials suitable for engineering students, Zahra and Tavakoli (2010) have conducted a case study titled “Reassessing the ESP courses offered to engineering students in Iran”. Given the diversity and evolving nature of workplace requirements, they have attempted to investigate the occupational needs of a group of engineers in order to see whether the ESP instructional materials offered to them during their academic studies have been effectively reciprocated in their workplace needs and have equipped them to communicate effectively in their careers. The study reveals its two fold aims, first; to investigate language skills and components of ESP textbooks offered to students at universities in Iran, and the second; to investigate as to what extent these ESP courses have been successful in fulfilling the job requirements of the prospective employers. The results of the needs analysis, using through questionnaires, have revealed that ESP courses proposed at universities can prepare the grounds for the respondents’ future job purposes but they are not sufficient to account for the specific job requirements of individual engineers. In other words, in-service ESP courses based on an ongoing analysis of the employees’ needs should be administered in order to account for their specific job requirements. Though in case of the present research, the English teachers are not aware of what ESP is; it will be very difficult for them to address the potential gaps between industry needs and that of the students.
Another study has been conducted by Li So-Mui and Mead (2000) to investigate into the workplace English needs of Textile and Clothing Merchandisers in Hong Kong who communicate in the international marketplace. Through questionnaire surveys, telephone interviews, analysis of authentic correspondence and visiting to workplaces, a detailed understanding was obtained of the communication demands placed on merchandisers working in this business environment. The survey showed extensive usage of English exposure for these textile and merchandising students and especially more of written English than spoken English. Since Hong Kong had textile business ties with more than 50 countries, there was no alternative to speaking and writing in English for the merchandisers. The survey also indicated that written communication through fax tops the lists of channel of communication followed by telephone, e-mail, face to face etc. Unfortunately there was almost no preference given to telex, written letters and standard forms. Hence the study lead to a deeper analysis and renewal of the existing ESP courses assigned to these Hong Kong Textile and Clothing Merchandisers since they were responsible for the complete communication so that business can be conducted without any professional embarrassment. Though this study seemed an exact match with the current teaching learning context in engineering universities in Bangladesh, still there are contextual gaps between Bangladesh and Hong Kong in terms of communication requirements. Hence those gaps will be addressed in the current study.

Many experts have left behind significant amount of legacy in the realm of professional English. The followings are some of the notable practitioner who contributed a lot in determining the needs of professionals in their workplaces. These English for Professional
Purposes (EPP) practitioners are (Bhatia, 1993, 1997, 1999; Dudley-Evans, 1997; Flowerdew, 2000, Henry and Roseberry, 1998; 2001). These studies have helped teachers to look at the linguistic activities of students to produce speech and writing and thus incorporate these activities in their teaching learning practices. Cope and Kalantzis (1993 as cited in Osman, 2004) state four stages of the Genre Based Instruction (GBI): modeling, guiding, practicing and finally writing the genre. Hence these practitioners of professional English have suggested that these four stages of GBI can well be considered as part of teaching learning practices in the English curriculum in the engineering universities. However, their sole focus on speech and writing makes the study limited as listening and reading skills cannot be totally ignored for many engineering professionals.

“Technology reorganizes our lifestyles, ways of communication and ways of learning” as stated by Topolovec, Marinovic and Pavlic (2008, p.301). They, further, cite certain learning principles suited for the neo-millennium learners:

- Fluency, use of multimedia, valuing each for different types of communication, activities, experiences and expressions it empowers. They prefer to work within a single medium best suited for one’s learning styles.
- Learning based on collectively seeking, sieving and synthesizing experiences rather than absorbing a single source. They prefer to engage in community learning for diverse, tacit, contextual experiences over solo integration of divergent, explicit information sources.
• Active learning based on experience (real and simulated) that offers frequent opportunities for reflection. They value bi-centric, immersive frames or reference to enjoy direct participation.

• Expressions through non-linear, associative networks of representation rather than linear stories. This includes representation with the help of richly connected, positioned simulations.

Holliday (1995) has assessed the English language needs of an unnamed oil company in the Middle East. The study aims at analyzing and making recommendations regarding the language needs of national staff, recommends a broad curriculum framework for language training courses and recommends implementation phases for course development and the training of instructors. His survey’s goals have been decided for him as he claims, “by the company’s Training Department that the investigation takes a form of interviews with the management, a sample of supervisors and a sample of national employees. I had no opposition to this decision” (p. 117). He also explains the role of English and its importance in the oil industry in this way:

• English is the major language of oil technology, and is therefore essential for efficient communication within the company between the national and expatriate staff. This is particularly important because the company is a joint-venture between the state-owned national Oil Company and a major international organization. The expatriate staffs are multi-national, and although few of them have English as a native language, English has been the accepted lingua-franca of the work place (p. 118).
Holliday (1995) highlights the problems of the Middle East Oil Company in terms of the most common and problematic issues of English language communication. Explaining problematic situations that occur in such an environment by showing examples that highlight the lack in communication and the dangerous result of this breakdown in communication. He argues further:

“When a national engineer is responsible for a drilling location, a crisis occurs. The engineer needs to telephone for assistance, but is unable to explain precisely and quickly what has to be done. The outcome may be disastrous”.

(Halliday, 1995. p. 120)

However, Holliday’s article does not carry out a needs analysis or describe a course design. It might rather be labeled as a list of recommendations, which have been set according to the background information of this company. Since he was conducting this study under strict administrative monitoring by the Oil Company management, his list of recommendations might have worked well if he would have been given more freedom to conduct a needs analysis including all involved there. The context of the present study is quite similar to the study conducted by Holliday (1995) as the English courses and syllabuses are designed mostly based on the perceptions and recommendations made by the experts in the area.

2.2 From Course Design to Curriculum Development

In this context, Kaewpet, (2009) has conducted a research “A Framework for Investigating Learners Needs: Needs Analysis Extended to Curriculum Development” in Rajamangala University of Technology, Krunghthep, Thailand with a view to identify the Engineering
learners’ specific target needs. The study has made use of all the available models such as a sociolinguistic model (Munby, 1978), a systemic approach (Richerich & Chancerel, 1977), a learning-centred approach (Hutchinson & Waters, 1987), learner-centred approach (Berwick, 1989; Brindley, 1989) and a task-based approach (Long 2005a, 2005b) along with multiple data collection methods and using multiple perspectives to arrive at a comprehensive framework to identify the learners’ specific needs and thus addressed their needs in the curriculum. The study concludes that any ESP curriculum must start with needs analysis to identify the learners’ academic and professional needs and must go through formative evaluation process to achieve further insights. However, this type of framework proposed in EFL context in Thailand can also be implemented in the context of the current study since it contains lots of flexibility in the framework.

Another research work conducted by Maimoona (1992) is also relevant here as it belongs to the similar context of the present study. Her study has outlined three broad approaches to English for Science & Technology (EST) course design as identified by Hutchinson and Waters (1987) such as; (a) language centered, (b) skills centered and (c) learning centered course design. She has adopted the third approach i.e. learning centered course design which considered account of the learners needs at every stage of the course design. She recognizes the need for learning English for the students of Science and Technology. She considers the needs felt by the students and the needs perceived by the teachers to arrive at a framework for designing a course in English for the students of engineering and technology. Based on the data collected from the first year and final year Bachelor of Engineering students and from the teachers of English and other subjects, Maimoona
(1992) has identified the following important language and communication needs appropriate for the engineering students in Pakistan.

1) Writing papers/ reports on subjects of specialization
2) Listening to lectures and understanding them
3) Discussing the subjects of specialization with teachers and others
4) Reading specialist subject texts/ journals and making notes out of them

Maimoona’s findings could be a very reliable reference for incorporating them in the existing English teaching learning practices in the engineering universities of Bangladesh.

In another study, Rahman (2012) has explored the needs of reading skills among undergraduate students in the field of Computer Science at Putra University, Malaysia. For this purpose, he has randomly selected fifty samples from the Department of Computer Science of the university. The study is based on the three fundamentals to explore language needs; Target Situation Analysis, Present Situation Analysis and Learning Situation Analysis. The findings reveal that a majority of the undergraduate students of Computer Science discipline face difficulties in reading skills mainly in skimming for the gist of the subject matter written in English, scanning to extract specific information of subject matter written in English and decoding meaning of the subject matters written in English. The researcher has concluded the study with a proposal for an English language course, named “English for Computer Science” that suits the target needs of undergraduate students to develop their reading skills in English language for their specialized discipline at the university. However, this study has focused on the limited aspects such as reading skills only. Besides reading, engineering students also need speaking and writing skills as well.
Hence Rahman (2012) has suggested for a branch wise ESP course for these learners. The study has some limitations as it takes reading as the only area of concern and secondly, he has proposed for a branch-wise EAP course which might prove very precarious for the context in this current study.

Though most of the researchers have argued in favour of a common core ESP syllabus to be offered for higher education especially for the engineering graduates, very few stand in favour of a subject-specific ESP course. However, one such study conducted by Dlaska (1999) supports narrowed down English courses for ESP students. Hence he has argued in favour of designing subject specific language courses and materials for students of engineering and sciences. He has further maintained that Language for Specific Purposes (LSP) courses offered in higher education should assess the situations and needs of learners. LSP courses need to be subject and content specific and the focus should not only be on the lexical and morph-syntactic levels but should also cover the levels of text, content, context and the communicative characteristics of a specialist subject area. Thus for improving the language competence level, grammar and the four core skills should always be practiced. However, Dlaska’s (1999) study has not addressed any specific issue and problem faced by a particular set of LSP students; rather it is more generic in nature. Apart from this, he has not even given any special emphasis on any particular skills; rather he has argued for all the major LSRW skills to bring into practice which is against the principle of subject-specific LSP course design.

Flowerdew (1995) has conducted a case study that has adopted an ESP approach in the Computer Assisted Language Learning (CALL) courseware design of a career-seeking
skills package designed for both the undergraduate and the post-graduate students at the Hong Kong University of Science and Technology. The main purpose of this study was to design self-access CALL materials based on students’ learning needs adopting an eclectic needs analysis model which incorporated elements of the language centered and learning centered approaches in the pedagogic and methodological principle of the course design. In the construction of exercises, Flowerdew reported that in addition to the target oriented needs and expectations, the students’ existing language proficiency or ‘lacks’ (Hutchinson and Waters, 1987) should also be taken into consideration. Though the CALL approach of ESP course is quite popular in the fastest growing world, in the context of the current study, there are quite a many issues stand as a block to implement such approach in Bangladesh.

The importance of ESP practitioners to work in collaboration with the respective experts from specific professional areas such as business or engineering related subjects is very high since it can only better execute the communication tasks expected from students and like in many other needs analysis studies, it has been reflected in the work of Mehisto (2007). She has emphasized the need for a comprehensive needs analysis and collaboration with content specialists in order to avoid the mismatch between the workplace needs and ESP courses offered. To outshine and show the excellent performance in the context of workplace, engineers not only need to effectively communicate technical information but also need to have acceptable social and communication skills. Mehisto (2007) has furnished her suggestions and recommendations for successful communication among engineering professionals but has not touched upon the procedures through which it can be
accommodated into curriculum and effectively transacted into classroom. However, her observation is of significant importance for the stakeholders in the current study.

There is little doubt that in the context of Bangladesh, as in some other developing countries, English for Specific Purposes (ESP) is a growing branch of EFL. Since, it is a very much new and growing discipline in Bangladesh, only a few studies have been found available in the area of ESP; especially in connection with the current study. Mostly the private universities in Bangladesh have introduced and included ESP in the curriculum keeping in mind its growth and demand worldwide.

A study in the context of Bangladesh has been conducted by Hakim (2013) on designing an ESP course for Bangladeshi undergraduate students. He has attempted to design an ESP course for the Bangladeshi undergraduate learners who take different majors in their higher studies. Hence he has tried to identify the problems faced by Bangladeshi ESP teachers and the students and based on his findings, he proposed an ESP framework adapted from Graves’ (1996, 2000) model for designing ESP course. Though the author of this article has made an attempt to address the issues faced by the ESP teachers in Bangladesh, he has not mentioned any specific target groups for effort. However his model will be of great use with certain modifications and specificity in the areas of course design.

In a professional context, Cowling (2007) has conducted a study on “Needs Analysis: Planning a syllabus for a series of intensive workplace courses at a leading Japanese Company” for the development of English language intensive course and improve its teaching learning practices at a large Japanese industrial firm. The study has been conducted in Mitsubishi Heavy Industries (MHI) based in Takasagu, Japan that has sought
for help from Nippon Information and Communication provider to set an intensive course package for its employees under three years of professional experience. The case study emphasizes the role of needs analysis in improving the teaching learning practices. He has used multiple sources of data gathering techniques such as focused discussion with the stakeholders, semi-structured interview with the target teachers and interviews with the target students and open-ended structured questionnaire for the students to complete with their senior employees. Through comparison of the various sources and methods and triangulating the results, the researcher has come to the conclusion that the MHI intensive syllabus requires to do four things:

(a) Provide nine areas of study (one area for each intensive course) that will be helpful to the students in their working lives.

(b) Provide a communicative course where students can adapt their current general English knowledge into business situations.

(c) Provide a course that takes into consideration cultural issues when communicating with foreign business people.

(d) Provide realistic (authentic) examples of language.

Hence the results reveal that great care is needed in the planning and execution stages as this area of syllabus design and materials production in teaching learning practices is often more complex than described in the literature of syllabus design.

2.3 Students’ Academic Needs

A qualitative study, on the needs analysis of Korean postgraduate engineering students in London, had been conducted by Shin (2008) which emphasized the inseparable relationship
of reading and writing skills that constantly interact together in text processing (Johns, 1997: 12) and the reading of source texts in the appropriate genres carefully and extensively provides resources, and promotes the modeling and recognition of typical features in the discipline (Flowerdew and Peacock, 2001). The researcher has used semi-structured interviews as the most important tool for collecting the data for this study to compare the perceptions of both the Korean postgraduate engineering students and the subject lecturers in an institution of science and technology in London. The researcher concludes that both groups of participants agree that students are required to be equipped with a flexible combination and balanced competence of all language and study skills, in order to fulfill real-life communicative tasks and to engage in meaningful conversations in the engineering community. Besides, Engineering academics also clearly acknowledge the importance of discipline-specific study skills for their study practices, indicating that the use of skills is contextualized in the discipline rather than transferable to other disciplinary areas.

2.4 Language Needs of Engineering Students

Salehi (2010) has conducted two studies which are highly relevant to this present study. The aim of the first study is to investigate the English Language needs of engineering students of Sharif University in Iran. A questionnaire has been administered among 225 students of various engineering disciplines such as mechanical, electrical, computer, industrial, material and civil engineering along with physics, mathematics and chemistry in Sharif University. He has used survey as the main tool to identify the current needs and future needs of the students of Sharif University. A confirmatory factor analysis using Principal Components Analysis (PCA) with varimax rotation has been applied to see if
different needs have been adequately addressed in the questionnaire. The results indicate that translation skill has been considered inappropriate while note taking skill is deemed unimportant for their future careers. Besides these, the technical writing skill has been considered to be very important. However it was found that the technical writing skill was totally ignored in the English curriculum in Sharif University.

Venkatraman and Prema (2007) has conducted a study titled “Identification and validation of ESP teachers competencies: A Research Design” to find out the English Language needs of engineering students at SASTRA University, Tamil Nadu, India. In addition, the study also aims at exploring the students’ opinions and expectations to validate ESP teachers’ competences. The researchers have conducted needs analysis survey among 254 engineering students. The researchers have observed that the students have given top priority to listening (comprehension and scientific texts) and professional speaking skills (job interviews and group discussions) as the most required and most desired language skills and sub-skills. The findings of the study also suggest that almost all the students agreed that ESP teachers must require a specific set of skills, other than those of General English teachers to become successful in this enterprise. Based on the findings, the researchers have proposed to design a curriculum in English and Communication studies for engineering students. Besides, to help the ESP teachers become successful in pedagogy, a competency-based training has been proposed for English teachers in order to deliver more learners’ career oriented instruction in ESP. Although the study has mainly focused on the needs of engineering students, it mostly focuses on the needs related to major language skills and its priorities in deciding the syllabus contents and components. In addition, while the above mentioned study has focused on the students’ expectation of the
teachers’ performance, it has not referred to any such expectation from the university syllabus and thus has not adequately addressed the gap between the students’ expectation and the university syllabus. However, the study has focused on ESP teachers’ lack of professionalism to address the students’ needs in the given context which is very important and relevant to the current study.

Soranastaporn (1993) has conducted a study on “A survey study of needs, problems, and wants in English language teaching and learning of nursing students at nursing colleges under the control of Nursing College Division, Office of the Permanent Secretary, Ministry of Public Health, Thailand”. The findings of the study indicate that both nursing students and teaching staff have shown their positive attitude towards English language and thus wanted more English courses for their further development. Both teachers and students have felt that they need to improve reading skills more compared to other LSRW skills. However, students want to practice listening and speaking while teachers wanted them to practice reading and writing. In this way, the different perceptions from various stakeholders on language needs have been exposed.

A qualitative study “ESP Needs Analysis for Engineering Students: A Learner-Centered Approach” has been conducted by Hossain (2013) among the engineering students of School of Engineering of Presidency University—a private university in Bangladesh. The aim of this study has been to identify the engineering students’ needs and goals especially in writing and speaking skills so that the researcher can help the students in their academic needs that will automatically lead to development of their professional communication. The researcher has used questionnaire survey method to elicit information about the needs and
wants of around 112 students from different engineering branches who enrolled for a Business and Advanced English Communication course in 2011. The questionnaire consists of 20 items distributed in three different sections namely: Present Situation Analysis, Target Situation Analysis and Context Situation Analysis. The results have indicated that most of the students’ proficiency level is very average even though many of these participants come from English medium background. Besides, the learners were found with an average level of proficiency in the target language, i.e. English. So they need to learn Business Communication or Advanced English Communication primarily for use in their future profession such as for writing business correspondence as well as for oral communication.

Similarly, Cook (2006) in his study has tried to investigate the aspiration of adult ESOL learners with adult migrant learners learning English in the UK. He used the case study method for his study. The findings suggest that the methods applied for attempting to meet the needs of these learners that include customized learning strategies are insufficient due to their ignorance of the real life experiences of the ESOL learners. Since they have been unable to understand the pragmatic social needs of migrants ESOL learners, they fail to realize their full potential as users of English as well as members of the labor force and potential future citizens.

The Language Studies Unit of the Curriculum Development Cell, Indian Institute of Technology (IIT), Kanpur, India has conducted a national survey in 1990 for the purpose of identifying English language needs for technical students. Data have been collected on the nature of language related needs of technical students across the country to provide an
objective database for developing a more learner-centered curriculum. Based on the findings, the following courses were developed: (1) Introduction to Technical Communication and (2) Advanced Technical writing.

Among the leading problems in engineering students, the lack of communication skills is reported to be the most prominent (Sageev & Romanowski, 2001). Jawhar (2002) stated that in the private sector, graduates are becoming unemployable as a result of lack of proficiency in English language.

2.5 Learners’ Active Participation and Increased Motivation in ESP class

P’Rayan (2007) highlights the importance of learners’ optimum involvement and active participation in ESP class. He further observes that it is imperative to actively involve the ESP students in designing their own courses and thus enhance their motivation and interest, increase their critical thinking and analytical skills, enable them to actively participate in various language learning activities enthusiastically. Once the ESP learners get positively motivated in class, it becomes quite easy for the ESP teachers to transform their teaching into effective learning. He further emphasizes that such a step would make the teaching learning process more enjoyable and paves the way for achieving the course objectives easily. In this regard, Robinson (1991) points out that observing recently passed-out students and in-service engineering professionals may be effective means in identifying to what extent the ESP course has prepared the outgoing students for the required communication needs for their workplace. Once the course designer has all the information available at his disposal, s/he would be in a better position to recognize, choose, adapt and select the course materials for the successive batch of students. Though Rayan’s (2007)
study has focused on issues such as motivation and learners’ participation as a guiding tool for designing the ESP course, there are areas such as ESP syllabus; teaching methods, evaluation etc. which remain untouched.

2.6 Technology in Language Learning in ESP Context

In a similar study, entitled “ICT in Language learning: Benefits and Methodological Implications” Mullamaa, (2010) refers to the benefits and methodological implications of using the Blackboard e-learning environment in teaching ESP; both face to face and web-based teaching run together in parallel. The purpose of this study is to highlight the significance of ICT in positively motivating and stimulating the learners in using blackboard e-learning environment for teaching language courses in English and Swedish and English for learning terminology and ESP. She observes:

“Our experience of using e-learning as a support to our eye-to-eye classes has proved to be positive and stimulating both for the students and the teachers. At the same time, there has been strong incentive from our university to encourage the teachers to explore the possibilities of on-line learning.” (p. 40)

The findings of her study are as follows:

- ICT usage in teaching language courses increases students’ motivation.
- E-learning is an effective support for classroom teaching due to its easy access to materials wherever and whenever the user wants.
- It also enables us to use modern methodology.
- It also helps the users developing the skills for finding the right information, analyze the present information and discuss it.
- It also develops among the users a sense of responsibility for the learning process.
• Besides, ICT can also help to create special ‘bridges’ between the study periods/different study years and groups.

• Finally ICT usage makes the users independent and autonomous learners

(Mullamaa, 2010, pp. 38-42)

Vallance (1997) has conducted a study on “The Design and Utilisation of an Internet Resource for Business English Learners”. The researcher has initiated this study to help business English learners wishing to review vocabulary and language expressions associated with conducting business meetings. In designing this study, he has made use of internet aided language learning resources extensively. The study shows that hypertext activities available on the internet that incorporate problem solving and decision making tasks can provide opportunities for sustained communications and linguistic development. The results from a questionnaire survey of students’ response to the internet sites indicates that more than 93% respondents reported that it seemed to provide them with a valuable resource that can be referred to at any time. It can be used either as a group activity or for individual or for individual self-study. Finally, the author has recommended for investment in staff and student training for institutions to make substantial utilisation of the Internet and its associated technological and pedagogical benefits. Though it has addressed on quite a many important issues essential for successful business meetings, still many business institutions have not accessed to online communication and hence due to lack of such online resource, they might not be able to take the privilege.
2.7 EAP Teachers’ Needs

In a study to identify teachers’ academic needs, Read (2008) has conducted an investigation titled “Identifying academic language needs through diagnostic assessment”. He has administered a diagnostic assessment test as a tool for the study. The researcher has given top priority to the application procedure for presenting the Diagnostic English Language Needs Assessment (DELNA) to the subjects in the university as well the appropriate procedures for reporting the findings and results. The study has come up with adequate findings that strongly suggest that DELNA is different from other similar EAP tests. In addition, the researcher also observed that the DELNA as a diagnostic test does not act as a gatekeeping device for university admission where a number of students were usually excluded based on the achievement in that test. Hence it has been observed that DELNA is mainly used as method of identifying the students for one or more courses within the given EAP program based on their level and potential needs.

Many English teachers in Bangladesh, like elsewhere, consider ESP teaching as just limited to teaching special lexicon and translating texts. So for many years ESP instruction in Bangladesh has been limited to this narrow level practices. Obviously, there is something wrong with the approach to teaching ESP in Bangladesh. Naturally, this approach does not seem to reflect students' interests and so, it has resulted in low learner motivation and poor participation and performance in ESP courses in Bangladesh. So ESP courses at Bangladeshi educational institutions should be designed in such a way as they would seek to reflect students' interests and result in high learner motivation and participation and would result in better performance.
2.8 Conclusion

The above studies on various components of English language teaching learning in various academic and professional contexts and engineering context in particular, have provided insights for the right direction of this present study. The researcher got clear insights of the gaps in these studies and he would like to fill these gaps through the present research. This chapter has mostly focused on the various studies and research works conducted in the similar context across the world. From here onwards the researcher moves towards the theoretical underpinnings of the current study.