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Title

An Analysis of ESP Learners' Needs:

The Case of Petroleum Engineering Students at Ouargla University

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Dedication

This dissertation is dedicated to my
wonderful parents: my mother
MESSAOUDA and my father
SALEM, who have raised me to be
the person I am today. You have
been with me every step of the way,
through good and bad times.
Thank you for all the unconditional
love, guidance, and support that
you have always given me, I love
you!
To my brothers: MOHAMMED,
ABDESSAMED, ABDELMOUNAIM
and ABDELBASSET

Abdelouaheb Kadi...

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List of Abbreviations

CDCM: Curriculum Development Centre of Malaysia

CNP: Communicative Needs Processor

DPE: Department of Petroleum Engineering

EAP: English for Academic Purposes

EFL: English as a foreign language

ELT: English Language Teaching

EGP: English for General Purposes

EOP: English for Occupational Purposes

ESP: English for Specific Purposes

EST: English for Science and Technology

GE: General English

LMD: Licence - Master - Doctorat

NA: Needs Analysis

UKMO: Université de Kasdi Merbah Ouargla

PSA: Present Situation Analysis

TSA: Target Situation Analysis

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I.   General Introduction

1.1   Overview of the Study

With the globalization of trade and economic, the expansion of scientific and technical activities in international scale and the continuing increase of international communication in various fields, the demand or English is growing, especially, in countries where English is taught as a Foreign Language (Hutchinson and Waters, 1987). Moreover, these factors and more strongly affect the graduate students to have a good command of the English language when they graduate from universities and it enhances the chance for them to secure jobs particularly in multinational companies.

As English is increasingly accepted as the "lingua franca" in different areas of profession, generally many English learners would like to learn the language specifically in their particular fields. Hutchinson and Waters (1987) further stated, "As English became the accepted international language of technology and commerce, it created a new generation of learners who knew specifically why they were learning a language" (p.6).

Therefore, these demands and requirements have resulted in the expansion of one aspect of English language learning, namely the learning of English for Specific Purposes (ESP). In other words, ESP is an approach to language teaching, which is based on learner need and the basis of all ESP is the simple question: Why does this learner need to learn a foreign language? (Hutchinson and Waters, 1987)

Within this approach, it is proposed that any ESP course should obey a strategy of predetermined objectives based on a needs analysis which aim is to identify what students are requiring the foreign language for. Particularly, This strategy in turn helps to determine what accurately it is that students have to achieve through the learning of that language (Richards, 2001; Robinson, 1991; Chen, 2006; Hutchinson and Waters, 1987; Dudley-Evans & John, 1998).

Petroleum Engineering students, in the academic year 2012-2013 at University of Kasdi Merbah Ouargla (UKMO) arrive to the faculty with different perceptions about the learning of English language. In a similar vein, Richards (2001) affirms

that, "different types of students have different language needs and what they are taught should be restricted to what they need. These needs are fairly specific and they can be identified, and they should determine the content of any course" (p.33). Accordingly, we find that the current English course is more related to General English (GE) than to English for Specific Purposes (ESP) and therefore more removed from the students' needs. This indicates that designing a course for those students is an urgent need.

In this account, many researchers (Hutchinson & Waters, 1987; Dudley-Evans & John, 1998; Robinson, 1991) argue that identifying students' needs should be the first step in designing an ESP syllabus. However, identification of the needs calls for a systematic way namely the needs analysis/assessment that was introduced into language teaching through the ESP movement. Hutchinson and Waters (1987) define ESP as "an approach to language teaching, course design and materials development in which all decisions as to context and method are based on learners' reason for learning"(p.19).

Conducting needs analysis is the most significant step in setting up an ESP programme. Dudley-Evans and St John (1998) state that "needs analysis is the process of establishing the WHAT and HOW of a course" (p. 121). Indeed needs analysis has been among research focus of high interest in ESP. A huge number of studies on this topic have been carried out internationally and in different areas of academic settings. In Algeria, for example, studies were conducted to investigate English language needs of ESP students (e.g. Ounis, 2005; Dakhmouche, 2008). As a result, all these studies and others confirmed the importance of identifying learners' needs and showed the dangers of ignoring NA in designing ESP courses.

To investigate the ESP learners' needs, our study is based on Hutchinson & Waters's (1987) target needs approach to NA. According to their views target needs is defined 'as an umbrella term' that includes three distinctions: 'necessities, lacks, and wants'.

1.2   ESP Situation at the Department

Kasdi Merbah University of Ouargla has been one of the foundation universities undergoing expansion and developments in the recent years. In the Department of Petroleum Engineering (DPE), there are various disciplines. Students need to take English language as a compulsory subject for graduation purposes.

Students start studying English module from the second year in the DPE. This module aims to teach students various grammatical structures, present appropriate written and oral texts belonging to the discourse of Petroleum Engineering and Science and Technology generally.

First, English language is taught for one hour per week in one semester of an academic year. Second, the students are introduced to English language which courses are limited to learning specific lexicon and translating texts. When classes were observed, very few students attended these classes. Attendance is not compulsory and this makes the situation worse. Moreover, materials used in classroom were designed and developed by individual lecturers. These materials are not developed according to research and findings in TEFL.

At UKMO, we have noticed that Petroleum Engineering students in the academic year 2012-2013 are less proficient in English. Our view is based on preliminary discussions with one English language teacher at UKMO and some petroleum alumni, who graduated from the DPE. They thought that the petroleum students complete their study without any benefit from the module of English language taught to them in the Department.

Based on the remarks above, it is necessary to realize the perceptions of the students in order to find out what they really need to learn in the module of English language.

1.3   Objectives of the Study

Previous research in the field of engineering showed that English language is very important in the academic and occupational lives of engineering students (Pritchard & Nasr, 2004). More specifically, the study aims to identify the students'

perceptions regarding English language for their studies, the frequency of the English language skills used, their ability in performing the skills, the aspects of language that they need to train in, and their preferences for the English language course.

1.4   Research Problem

At UKMO, Petroleum Engineering students are unable to practise effectively the four skills needed to master the language. From the outset, we have been inspired by this problem to attempt to explore the Petroleum Engineering students' English language weaknesses and identify their target needs. Thus we have asked the following questions:

1. Are engineering students aware of the importance of English in their field of studies?
2. What are the petroleum-engineering students' English Language necessities, lacks, and wants?

1.5   Limitations of the Study

This study is limited in terms of its scale and situation-unique conditions. The areas under discussion in this study are restricted to a small number of students and one department in one selected university (UKMO). Therefore, its findings may not be generalized to other populations with different backgrounds in other educational settings. Our findings are still tentative and subject to further confirmation and modification through more analysis and experimentation. Future research is suggested to involve learners of different backgrounds in different educational settings in order to further validate the findings of this study.

1.7   Definition of Terms

Clarification of the terms and concepts discussed in this study is of great importance. This list consists of: ESP, need, needs analysis, and target needs.

ESP (**E**nglish for **S**pecific **P**urposes) is one important branch of the EFL/ESL (English as a Foreign/Second Language) system that functions as the main branch of English language teaching (ELT). Therefore, 'ESP is not a particular kind of language or methodology, but rather an approach to language learning whereby the

content and method are based on the learner's particular needs to learn the language'(Hutchinson, and Waters, ibid, p.18).

Need: Need is the difference between what a learner can presently do in a language and what he or she should be able to do. In ESP learner's needs "are often described in terms of performance, that is, in terms of what the learner will be able to do with the language at the end of a course of study" (Richards, 2001, p.33).

Needs analysis: it is "(In language teaching and language program design) the process of determining the needs for which a learner or group of learners requires a language and arranging the needs according to priorities. Needs assessment makes use of both subjective and objective information (e.g. data from questionnaires, tests, interviews, observation)" (Richard et al, 2002, p.353).

Target Needs: Target needs refers to 'what the learner needs to do in the target situation' *(work domain)* (Hutchinson and Waters, ibid, p54).

1.8 Dissertation Organization

The present dissertation consists of a general introduction and three chapters. The first chapter reviews the literature on ESP and needs analysis. Initially, we present an overview to ESP considering the development of ESP course by Hutchinson and Waters (1987), the characteristics and EST form of ESP, then, we present needs analysis taking into account steps for conducting needs analysis. The second chapter presents research design and methodology. We describe the population and instruments used for collecting data and data analysis. In the last chapter we present the findings and discuss them.

Chapter One

Review of Literature

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Chapter One

Review of Literature

2.1 Introduction

This chapter examines the literature review concerning the different features of ESP and needs analysis. First, we suggest an overview of ESP considering the development of ESP course, the characteristics and EST type of ESP, and then we present needs analysis explaining the reasons and steps for conducting needs analysis.

2.2 Overview to ESP

The history of ESP dates back to the 1960s. Notably, there are three reasons for its emergence, the demands of a brave new world, a revolution in linguistics and a new focus on the learner (Hutchinson and Waters, 1987). ESP is a technical name that denotes English for Specific Purposes. Basically, it means teaching a specific variety of technical English to students with specific goals, majors, or jobs. In fact ESP as a phenomenon, as with most developments in human activity, grew out of a number of converging trends (ibid).

2.2.1 The Development of ESP Course

Hutchinson and Waters (1987) list five phases of the development of ESP where at each phase one area of activity appears to be important. These phases are register analysis, discourse analysis, TSA, skills and strategies, and learning-centered approaches.

First, the concept of special language took place mainly in the 1960s and early 1970s and was associated with the work of Peter Strevens, Jack Ewer, and John Swales. Register analysis stemmed from the basic principle that the English of Electrical Engineering comprised a specific register different from that of Biology or General English. It requires recognizing the linguistic features of these registers. Therefore, the syllabus describes the teaching materials referring to these grammatical and lexical features and it gives more opportunity to the language forms students would come across in their study (Hutchinson and Waters, ibid, p.9).

Second, since register analysis operates almost entirely at word and sentence levels, discourse analysis shifted attention to the level above the sentence and tried to find out how sentences are combined into discourse to create meaning. Recognizing the organization patterns in texts and specifying the linguistic means by which these patterns are signaled is the main concern. Therefore, these patterns would form the syllabus of the ESP course (Hutchinson and Waters, ibid, p.11).

Third, the Target Situation Analysis aims at establishing procedures for linking language analysis more closely to learners' reasons for learning. To allow learners to function effectively in a target situation, the situation in which the learners will use the language they are learning, thus the target situation should be recognized. An analysis of the specialized language forms needed in that situation which is a procedure to needs analysis should be carried out (Hutchinson and Waters, ibid, p.12).

Fourth, skills and strategies stage aims to "consider not the language itself but the thinking processes that underlie language use" (Hutchinson and Waters, ibid, p.13). Underlying all language use there are common reasoning and interpreting processes, which, are not considering the surface form and they enable us to extract meaning from discourse considered as the basis behind skills-centered approach. Therefore, the focus should be on the underlying interpretive strategies that enable the learner to deal with the surface forms, for example guessing the meaning of words from context, using visual layout to determine the type of text, etc.(ibid).

Fifth, the aforementioned stages are all based on the descriptions of language use but this stage engages with language learning. Learning centered holds the statement that a truly valid approach to ESP has to be based on an understanding of the processes of language learning (Hutchinson and waters, ibid, p.14).

2.2.2 ESP Characteristics

Hutchinson and Waters (ibid) affirm that ESP must be seen as an approach not a product. ESP is not a particular kind of language or methodology, nor does it consist of a particular type of teaching material. But this whole analysis derives from an initial identified need on the part of the learner to learn a language (p.18).

Strevens (1988 as cited in Dudley-Evans and St. John, 1998) provides a list of characteristics of ESP. He states that in order to define ESP there is a need to distinguish between four absolute and two variable characteristics. Dudley-Evans and St. John modified this version and they state that 'ESP may be related or designed for a specific discipline, ESP may be used in a specific teaching situation with a separate methodology from that of EGP, ESP is possibly designed for adult learners, and ESP is generally developed for intermediate and advanced learners (ibid, p.5).

2.2.3 EST: ESP Type

Under the umbrella term of ESP there are a myriad of sub-divisions, for example EAP, EOP, and EBP. In EAP, English for Science and Technology has been the main area.

Munteanu (2011) defines English for Science and Technology as "the language used in the professional contexts of natural sciences and technology" (p.7). Science and technology provide people with the information and tools to understand and deal with a lot of the challenges. Particularly, students must be provided with opportunities to get into, recognize, and evaluate current information and tools related to science and technology. Hence, it is important to account for EST in the context of ESP and the area of EST.

EST belongs to ESP, which started soon after the Second World War when a large expansion in scientific, technical, and economic activity began. The world was dominated by technology and commerce. Therefore, the aim of states and educational institutions was to develop people who wanted to learn English. They knew what they would use the knowledge of special English for "Learners were seen to have different needs and interests, which would have an important influence on their motivation to learn and therefore on the effectiveness of their learning" (Hutchinson and Waters, 1987, p.8).

According to Swales, the area of EST "is known to have been developed especially rapidly. EST has always set and continues to set the trend in theoretical discussion, in ways analyzing language and the variety of actual teaching materials" (Swales, 1985 as cited in Hutchinson and Waters, 1987, p.9).

2.3 Need and Needs Analysis

It is possible to come across with different definitions of needs and needs analysis in literature. According to Hutchinson and Waters (1987) the history of ESP indicates that Munby is the first specialist who enounces "a highly detailed set of procedures for discovering target situation needs…" (p.54), in 1978 in his noteworthy contribution entitled "Communicative Syllabus Design". "Communication Needs Processor" or "CNP is first most thorough and widely known model on needs analysis. For Hutchinson and Waters:

> *"The CNP consists of a range of questions about key communication variables(topic, participants, medium, etc.) which can be used to identify the target language needs of any group of learners"(ibid, p.54).*

Initially, needs were classified by Hutchinson and Waters (1987) into ''target needs *(i.e. what the learner needs to do in the target situation)* and leaning needs *(i.e. what the learner needs to do in order to learn)*'' (p.54). Target needs were made up of necessities, lacks and wants and learning needs were used by Hutchinson and Waters as general term comprising all factors that influenced language learning such as attitude and motivation. Hutchinson and Waters argue that 'the needs, potential and constraints of the learning situation must be taken into account' (ibid, p.61) if the process of needs analysis was going to be useful.

In fact, needs analysis was introduced into language teaching through the ESP movement; it is and always will be an important and fundamental part of ESP (Gatehouse, 2001); and it is 'the corner stone of ESP and leads to a much focused course' (Dudley-Evan &St. John, 1998, p.122). Needs analysis has been acknowledged by several scholars and authors (e.g. Hutchinson and Waters, 1987; West, 1994; Dudley-Evans and St. John, 1998; Iwai et al. 1999).

Generally the term needs analysis refers to the activities that are conducted and involved in collecting information that will serve as the basis for developing a curriculum that meets a particular group of students' needs (Iwai et al., 1999). There is a plethora of research that has been carried out internationally in NA. In Algeria, for example, studies were conducted to investigate English language needs of ESP students (e.g. Ounis 2005, Dakhmouche, 2008).

The study of Ounis (2005) investigated the needs of Agronomy students in the use of English for Specific Purposes at Batna University. The findings revealed the positive opinions of both ESP teachers and students on the needs of using the specific English courses tailored for Agronomy students. The four major skills were greatly needed. Reading skills were considered as the most important. Then, Dakhmouche (2008) was concerned with the teaching of English as a foreign language at the Department of Computer Science, Mentouri University of Constantine. The findings of this study show that the application of some strategies of predetermined objectives would enhance better the students' achievements in learning English for specific purposes.

NA research was not restricted, however, to Algeria; some studies have been reported in the Arab EFL learners' needs (*See the Asian ESP Journal*). Accordingly, literature reveals that NA is essential so as to investigate the needs of a particular group of learners through different data collection instruments from different sources. The outcomes of such studies direct to useful judgments regarding the development of basic curricular elements. As well, all these studies confirmed the importance of identifying learners' needs and showed the dangers of ignoring NA in designing ESP courses.

2.3.1 Necessity for Needs Analysis

According to Soriano (1995, as cited in Channa, 2013) the most frequent reasons for needs analysis to be conducted are "justification for funding, regulations or laws that mandate needs analysis, resource allocation and decision-making determining the best use of the limited resources and as part of program evaluations" (p.XV).

Richards (2001) states that needs analysis in language teaching can be used for a number of different purposes, for example:

- "To find out what language skills a learner needs in order to perform a particular role, such as sales manager, tour guide or university student
- To help determine if an existing course adequately addresses the needs of potential students
- To determine which students from a group are most in need of training in particular language skills
- To identify a change of direction that people in a reference group feel is important

- To identify a gap between what students are able to do and what they need to be able to do
- To collect information about a particular problem learners are experiencing" (p.52)

A needs analysis provides information to the instructor and learner about what the learner brings to the course (if done at the beginning), what has been accomplished (if done during the course), and what the learner wants and needs to know next (Richards ,ibid).

2.3.2 Steps in Needs Analysis

There are certain kinds of models with different steps suggested for needs analysis. To begin with, models in NA are stated as the following.

Richards (2001) proposes that 'decisions on the practical procedures involved in collecting, organizing, analyzing and reporting the information collected should be made. He states that there are needs to be a clear reason for collecting different kinds of information and so as to ensure that only information that will actually be used is collected' (p.64). Gravatt, Richards, and Lewis (1997, as cited in Richards, 2001) state the following procedures which have been used in investigating the language needs of non-English-background students at New Zealand University:

1. 'Literature survey
2. Analysis of wide range of survey questionnaires
3. Contact with others who had conducted similar surveys
4. Interviews with teachers to determine goals
5. Identification of participating departments
6. Presentation of project proposal to participating departments and identification of liaison person in each department
7. Development of a pilot student and staff questionnaire
8. Review of the questionnaires by colleagues
9. Piloting of the questionnaires
10. Selection of staff and student subjects
11. Developing a schedule for collecting data

12. Administration of questionnaires

13. Follow-up interviews with selected participants

14. Tabulation of responses

15. Analysis of responses

16. Writing up of report and recommendations' (p.64)

The above sixteen mentioned procedures apply to this particular study except the (5, 6, 7, 9, and13).

The Steps in needs analysis are stated by McKillip (1987, as cited in Ekici, 2003): 'Identify users and the uses of the needs assessment; describe the target population and the service environment; Identify needs (- *Describe problems - Describe solutions*); Assess the importance of the needs; and Communicate results' (p.26).

2.3.3 Target Situation Analysis

Many ESP scholars propose that TSA is the fundamental approach for analyzing language needs of learners. In fact, all the different components to language needs analysis attempt to meet the needs of the learners in the process of learning a second language and are employed to examine different focuses and issues in language planning, development, teaching and learning. It is possible to say that the theoretical aspect of the needs analysis is based on TSA component. Therefore, it is necessary to review the literature concerning the TSA.

Mumby's model of needs analysis (1978, as cited in Hutchinson and Waters, 1987) clearly established the place of needs as central to ESP. As Hutchinson and Waters (1987) say:

> *"With the development of the CNP it seemed as if ESP had come of age. The machinery for identifying the needs of any group of learners had been provided: all the course designers had to do was to operate It" (p.54).*

In fact, Chambers in his 1980 article first used the term TSA in which he attempted to elucidate the confusion of terminology. For Chambers TSA is "communication in the target situation" (p.29). TSA is a component of needs analysis, which focuses on identifying the learners' language needs in the occupational or academic situation they are being prepared for (West, 1994). In the same vein, Hutchinson and Waters (1987) define target needs as 'what the learner

needs to do in the target situation'. These were made up of necessities, lacks, and wants and 'what the learner needs to do in order to learn' are his learning needs (p.54).

If target situation analysis tries to establish what the learners are likely to be at the end of the language course, several terms have also been introduced to NA: Present Situation Analysis, Pedagogic Needs Analysis, Deficiency Analysis, Strategy Analysis or Learning Needs Analysis, Means Analysis, Register analysis, Discourse analysis, and Genre Analysis. Thus, all these different approaches to needs analysis tried to meet the needs of the learners in the process of learning a second language.

2.2.4 EST: The Students' Needs

Kennedy and Bolitho (1990) state that in general, EST as a subject in school provides students with the language skills to access and understand materials on science and technology, and to express ideas and concepts in English. Much of the demand for ESP has come from scientists and technologists who need to learn English for a number of purposes concerning their specialism. It is accepted; for that reason, EST should be an important aspect of ESP programs.

In the resource book of EST (2006), Curriculum Development Centre of Malaysia (CDCM) writes that EST aims to 'teach the different ways of accessing and using information to advance knowledge in various fields and it enables students to present information on science and technology at an appropriate level in both written and spoken forms, to think critically, and give points of view on issues pertaining to science and technology' (p.III).

Furthermore, CDCM lists the learning Skills which students require in EST course:
- 'Acquiring terminology and expressions in science and identifying relevant facts
- Comparing, contrasting, interpreting and analyzing information and drawing conclusions
- Understanding stages in scientific methods
- Reading different text types in science and technology from both print and electronic sources

- Listening to spoken texts such as talks, lectures and viewing TV documentaries and multimedia resources'(p. XI)

All these skills are comprised in which students be competent in 'Reporting', 'Describing', 'Explaining', 'Listing', and 'Summarizing'(p. XI).

Briefly, the whole process of EST or rather ESP content selection has been noticeably defined by Kennedy and Bolitho (ibid):

> *"It is based on a functional analysis of the language a learner needs and the development of related communicative abilities (reading, writing, listening, and speaking in an appropriate balance and in suitable contexts)" (p.10).*

2.4 Conclusion

As shown in this chapter, various points have been explored and discussed. It is important to notice that ESP is a strong movement which has imposed its influence all over the world. Setting up an ESP program requires four important stages including needs analysis, syllabus, curriculum design and assessment or evaluation.

Needs analysis is a key component in ESP course design and development and its role is clearly indisputable. Johns and Price-Machada (2001, as cited in Basturkman, 2010) argue that it is an obligatory step: 'In every genuine ESP course, needs assessment is obligatory, and in many programs, an ongoing needs assessment is integral to curriculum design and evaluation' (p. 49). A huge number of studies on this topic have been carried out internationally and everything is built around the learner's needs and in a few words, needs analysis is a pivotal step that the other steps rest on.

Chapter Two

Research Design and Methodology

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Chapter Two

Research Design and Methodology

In this chapter, first the introduction of the study is presented. The participants of the study and the progress of the data collection instruments are described also data collection procedure and data analysis methods are presented.

3.1 Introduction

In Engineering Education, specific English language skills are needed to enable students to succeed in their academic settings (Tan, 1999; Pendergrass et al., 2001). To determine what students need to reach through the medium of English correctly, this study aims at investigating the English language needs of the Petroleum Engineering students at DPE on the basis of their perceptions. Both qualitative and quantitative data were collected through the questionnaires distributed to students and English teachers.

The design of the study was based on Hutchinson & Waters's (1987) target needs component to needs analysis. Target needs comprises the learners' necessities (their target linguistic features), lacks (considered of the actual level and potential level of proficiency), and wants (what the learners believe they want and need). Identifying learner's necessities as "the demands of the target situation, that is, what the learner has to know in order to function effectively in the target situation" (p. 55). Then what they lack should be studied to recognize the gap between their target and existing proficiency (Hutchinson & Waters, 1987).

According to West (1994), Hutchinson & Waters's target needs approach to NA proposes "a useful classification of needs which may be seen to reflect differing viewpoints and give rise to different forms of NA" (p.3). This justifies the usefulness of this model as it is methodical, appropriate and has been suggested by a lot of researchers (e.g. West, 1994, Al-Tamimi and Shuib, 2010).

In view of that, we examine the Petroleum students' English language necessities and attempted to realize their views of the frequency of their use of

English language skills. The students' ability in performing the language skills was elicited to analyze the students' lacks. Lastly, to investigate the amount of training, those students would like to consolidate their language skills.

3.2 Participants

Two groups were involved in this study. That is to say, it deals with students' perceptions regarding their own English language needs and the views of their English teachers.

3.2.1 Students

The target student population in this study was the students who studied in the academic year 2012-2013 in the Department of Petroleum Engineering at UKMO. The DEP provides five years on LMD system of instruction that qualifies the students to graduate with a "licence" after the first three years and Master degree in Petroleum Engineering after two additional years.

There are many reasons for selecting the petroleum engineering students in this study:

- They are ESP students who are usually studying English in order to carry out a particular role, such as that of foreign student in an English medium university, flight attendant, mechanic, or doctor (Richards, 2001).

- These students would certainly have particular and many views regarding their target language needs since they are the pillars in the teaching and learning process. As Long (2005, as cited in Al-Tamimi & Shuib 2010) stated using students as informants seems an obvious choice, and they are often the ''primary, sometimes the only, respondents'' (p. 19).

- Their wishes, wants and desires are of paramount importance in any NA research as reflected in many studies (e.g. Hutchinson & Waters, 1987; Dudley-Evans & John, 1998).

According to Drobnic (1978, as cited in Chambers, 1980) 1st and 2nd students "should not be expected to make sound language decisions concerning their needs", i.e., they are inexperienced students. Only 30, third (3rd year License), and 1st year Master and 2nd year Master Petroleum Engineering LMD system students, were randomly selected as a sample to fill in the questionnaire designed to draw out

responses to their target needs. In fact, those students were likely to have sufficient information concerning their language needs since they had learned for more than two years at the DPE.

3.2.2 Teachers

The second group is not so important in this study and it consisted of three English teachers who were teaching English for Petroleum Engineering students for at least one year. Fortunately, this sample was employed to clarifying the ESP context for petroleum engineering students. As a result of their valuable experience, they were administered the questionnaire as well.

3.3 Data Collection Instruments

Dudley-Evans and St. John 'TSA generally uses questionnaire as the instrument' (1998, p.125). The most common instruments used are questionnaires, because they are relatively easy to prepare, they obtain information that is relatively easy to tabulate and analyze; they can also be used to elicit information about many kinds of issues, such as language use, attitudes and beliefs (Richards, 2001, p.60).

In this study, a questionnaire was used as the only data collection instruments of enquiry. Two different questionnaires were employed and they included close-ended and opened-ended questions to collect data. One questionnaire was adapted from Diallo (2008) and was administered to English language teachers. A needs analysis questionnaire (the main tool in this study) was administered to students at the department of Petroleum Engineering −Ouargla University and the design of this questionnaire was based on the survey instrument by Al-Tamimi and Shuib (2010).

3.3.1 English Teachers Questionnaire

This questionnaire (See Appendix A) was designed in a form that both qualitative and quantitative data were collected. English teachers' questionnaire consisted of four sections. The first section intended to collect general background information from the English teachers.

The second section was designed to identify the teachers' perceptions regarding their English language teaching methodology and it consisted of six

questions. 1st and 2nd questions were developed to assess the teaching methods and materials used by teachers. The last questions considered the use of translation in the course and to what language aspects they focused on.

The third section developed to assess the teachers' views regarding the student motivation. Four questions were asked. The participants were requested to determine the degree of students' motivation (very, quiet, not), and they were requested to specify why they are/are not motivated.

The last section intended to collect the teachers' opinions about the English instruction in the institute. It consisted of six questions. The participants were asked to specify the degree of their agreement with these ideas about English language teaching at this Department, whether they agreed or disagreed with the time allocated to the English language teaching, and whether the teaching focus on GE or English needed. Finally, they were requested if they have a commentary on the teaching of English language at DPE to state it.

3.3.2 Student Needs Analysis Questionnaire

This questionnaire (See Appendix B) was designed in a form that both qualitative and quantitative data were collected. The students' needs analysis questionnaire contained three parts.

The first part aimed at collecting general background information from the students and whether or not they consider English important for their field of study? As well, another question were asked how they describe their attitude towards English learning at the beginning of their studies.

The second part was designed to identify the students' perceptions regarding their English language needs and consisted of three questions and two-scale formats. One of the 5 point Likert scale (1=never and 5=always) and (sometimes and rarely= x) aimed at finding out the perceptions of the students regarding the use of 16 English language sub-skills related to the four skills, namely reading (items 1 to 4), writing (items 5-8), listening (items 9-12), and speaking sub-skills (items 12-16) and were adopted from Al-Tamimi and Shuib (2010). The second question was developed to assess the students' ability to perform eight language skills. The respondents were

requested to rate their proficiency using weak, average, good, and very good. The other four point Likert scale (1 = no training needed" and 4= a lot of training) required the students to rate the same 16 sub-skills in first question to elicit their needs for training to improve performance in these skills.

The last part of the questionnaire was based on Kaur's (1993, as cited in Al-Tamimi and Shuib 2010) work, to draw out the students' perceptions regarding the appropriateness of the current English language course. Four questions were asked in this part.

The first question aimed at identifying the usefulness of the English language course with regard to the students' English language needs. A five-point Likert scale was used ranging from 1 (useful) to 5 (not useful). For The second question, the participants were requested to specify their preferences for the type of English language course that they would like to attend. They were informed that they could select more than one choice. Finally, the students were required to state whether they were satisfied with the time allocated to the English language course. They were requested to specify their answers with "Yes" or "No". Finally, we asked the students of their views regarding the language aspects of the course that they would suggest having training/teaching in. The students were given the freedom to choose more than one option.

3.4 Data Collection Procedure

In conducting this study, a triangular approach is used to obtain the kind of information i.e. both students and teachers. According to Richard (2001) 'since any one source of information is likely to be incomplete or partial, a triangular approach (i.e., collecting information from two or more sources) is advised' (p.59).

In May 2013, we started carrying out the main study at the DPE in the UKMO. Before administering the questionnaire, we met with two Petroleum Engineering students in order to coordinate for any clarifications with the target population they might need. The questionnaires were distributed at the DPE. The teachers and students as sources of data collection were informed of the objectives and significance of the Research. They have all opportunities and all the time to state real, to answer slowly, deliberately and honestly the questions. In addition, we
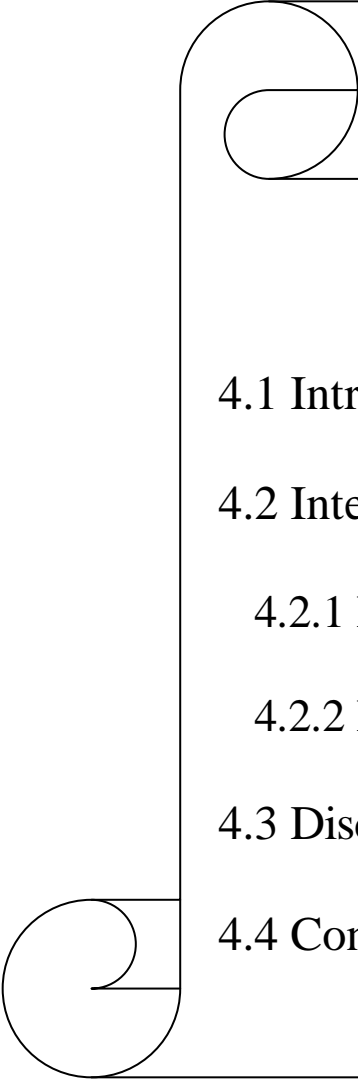
acknowledged for the time they would spend in filling in the questionnaire. We gathered the prints after a week and once they finished answering the questionnaires, they were requested to check their responses for incompleteness or missing answers. Both teachers and students were used to answer such as a questionnaire, so they were very comprehensive, cooperative.

3.5 Data Analysis

The descriptive analytic method will be used in this study. It analyses the answers of participants to the questions suggested in the questionnaires.

The English teachers' questionnaire was administered to three English teachers. It provided, some information regarding the nature of the English language course given to Petroleum Engineering students. Some of the answers to the questions in this form were utilized for clarifying the English language context for petroleum engineering students.

The most detailed tool was the students' needs analysis questionnaire. Statistical Package for Social Science (SPSS v.20) was used to produce descriptive statistics for the frequencies, means, and the relative percentages. Frequencies and percentages for each item reflecting target needs was calculated so as to have the opportunity to compare the students' perceptions.

Chapter Three

Findings and Discussions

4.1 Introduction

4.2 Interpretations of the results

   4.2.1 Perceptions of Students

   4.2.2 Perceptions of Teachers

4.3 Discussions of the results

4.4 Conclusion

Chapter Three

Findings and Discussions

4.1 Introduction

In this chapter, the interpretations and discussions of results gained from the data collection instruments are presented. Both students' perceptions and teachers' perceptions are reported and then discussed.

4.2 Interpretations of the results

4.2.1 Perceptions of Students

Perceptions of students are divided into two main sub-sections: the students' English language needs and their preferences for the English language course.

4.2.1.1 Background Information

This section intended to collect personal information from the students. According to the first item, it is noticeable that all the respondents are males, the majority is first year master students, and the rest is third year students.

Analysis of the Questions

Question 2: Do you consider English important for your studies?

	Number	P %
YES	23	76.6 %
NO	7	23.3 %
Total	30	100 %

Table (1): Importance of English

Table (1) indicates that 76.6% of respondents have answered "Yes" while 23.3% have answered "No". Since a large proportion of first year master students have answered "Yes", one can say that English is very important for their studies and their motivation remains higher. This question has been devised in order to know

the importance of English for this kind of learners. As Kennedy and Bolitho point out "Much of the demand for ESP has come from scientists and technologists who need to learn English for a number of purposes connected with their specialisms" (1984, p. 6).

Question 3: How would you describe your attitude towards English language learning at the beginning of your studies?

	Number	**P %**
Favorable	21	70 %
Unfavorable	9	30 %
Total	30	100 %

Table (2): Students' Attitude towards English Learning

According to the results recorded on Table (2), 70% of the respondents expressed a favorable attitude towards English learning while 30% have not. 'A student's previous learning of English may influence the attitude to an ESP course' (Kennedy and Bolitho, ibid, p.16). This question was asked to get an appreciation of the students' attitude.

4.2.1.2 The students' perceptions regarding English language needs

Question 4: What sub skill would you most like to use now?

	English language skills	**N**	**Mean**
Reading sub-skills	Reading textbooks and course handouts	30	2.3125
	Reading technical articles in journals	30	1.3125
	Reading technical manuals	30	1.1875
	Reading study notes and texts on computer	30	2.1875
Writing sub-skills	Writing short projects and assignments	30	1.6875
	Taking notes in lectures	30	1.8750
	Writing exam answer	30	2.3125
	Writing text	30	1.8125

Listening sub-skills		Following lectures	30	2.1250
		Following question/answer sessions in class	30	1.5010
		Listening to spoken presentations	30	1.1910
		Listening to instructions and explanations	30	2.0102
Speaking sub-skills		Participating in discussions	30	1.3025
		Asking questions in class	30	0.1865
		Giving spoken presentations	30	0.1625
		Others (please specify)	30	-

Table (3): Students' Frequency of English Language Skill Use

Depending on the results recorded on Table (3), regarding reading sub-skills, the results indicated that the most frequently used skill was reading textbooks and course handouts with a mean of (2.3125), followed by reading study notes (mean=2.1875), reading technical articles in journals (mean=1.3125), and reading technical manuals (mean=1.1875). For the writing sub-skills, the results showed that the students often write exam answer and they sometimes take notes in lectures. On the other hand, writing short projects and assignments have been viewed by the students to be the least frequent used sub-skills.

Among the sub-skills of listening, it was found that following lectures (mean=2.1250) and listening to instructions and explanations (mean=2.0102) were perceived to be most often used. The remaining listening sub-skills, i.e. following question/answer sessions in class (mean=1.5010), followed by listening to spoken presentations (mean=1.1910), were viewed to be used less.

In terms of the speaking sub-skills, the findings also revealed that while the students sometimes participate in discussions (mean=1.3025), they rarely ask questions in class (mean= 0.1865) or gave spoken presentations (mean=0.1625).

Question 5: Would you say that, at the present time, your proficiency in English language is:

Weak?

Average?

Good?

Very good?

	No	Mean
Speaking	30	0.6225
Listening	30	0.7523
Reading	30	2.6256
Writing	30	2.8752
Grammar	30	0.8657
Vocabulary	30	1.3785
Pronunciation	30	1.2655
Communication	30	0.5586

Table (4): Students' English Language Proficiency

This question was asked to involve the students in self-evaluation of their performance in the English language. For that reason, Robinson (1989) sees "Many students all over the world are studying technical or academic subjects wholly or partly through the medium of English: their command of the English language must be such that they can reach a satisfactory level in their specialist subject studies"(p.96).

Table (4) sums up the results recorded in the fifth question. The respondents rated their performance at average level in writing (2.8752), reading (mean=2.6256), vocabulary (mean=1.3785), pronunciation (mean=1.2655), and grammar skills (mean=0.8657). Their perceived performance was lower for speaking (mean=0.6225), listening (mean=0.7523), and communication skills (mean=0.5586).

This evaluation is significant because it is achieved at the end of the academic year. If such results are seen, this may indicate that a great number of students are still facing lacks in English even at the end of their studies.

Question 6: Which of the following English language sub skills do you want or need to study?

	English language skills	N	Mean
Reading sub-skills	Reading textbooks and course handouts	30	1.8962
	Reading technical articles in journals	30	1.6458
	Reading technical manuals	30	1.8006
	Reading study notes and texts on computer	30	1.6814
Writing sub-skills	Writing short projects and assignments	30	1.8630
	Taking notes in lectures	30	1.4654
	Writing exam answer	30	1.6912
	Writing text	30	1.7959
Listening sub-skills	Following lectures	30	1.8652
	Following question/answer sessions in class	30	2.0012
	Listening to spoken presentations	30	2.0165
	Listening to instructions and explanations	30	2.1687
Speaking sub-skills	Participating in discussions	30	2.4375
	Asking questions in class	30	2.0568
	Giving spoken presentations	30	2.1584
	Others (please specify)	-	

Table (5): Students' Wants of Language Sub Skills Training

The respondents' wants in receiving training in speaking and listening is slightly stronger than writing and reading. Table (5) shows that all the subject' choices regarding speaking and listening tasks have mean scores higher than 2.0, except for following lectures (mean= 1.8652). While a number of reading and writing skills have mean values less than (1.9). Such as reading text books and course handouts technical manuals (mean=1.8006), writing text (mean=1.959), writing exam answers (mean=1.6912), reading study notes and texts on computer (mean=1.6814), and taking notes in lectures (mean=1.4654). Though, to some extent, high regarding the amount of training they would like to get to improve their English language sub skills.

4.2.13 The Students' Perceptions regarding English course

Question 7: How useful is the English language course with regard to your English language needs?

	Number	P %
Useful	8	26.6 %
Of some use	10	33.3 %
Not useful	12	40 %
Total	30	100 %

Table (6): Usefulness of the English Language Course

On the basis of the results shown in Table (6), we notice that 40% of the students responded negatively to the usefulness of the English language course. Whereas (33.3%) and (26.6 %) have answered that the course is "Of some use" and "Useful" respectively.

Question 8: Which type of English language course would you like to attend?

	Number	P %
EAP	9	30 %
EOP	15	50 %
GE	6	20 %
Total	30	100 %

Table (7): Students' English language course preferences

Table (7) shows that half of the students preferred to take courses in English needed rather than general one. In other words, almost 50% of the students preferred to take courses in EOP. Thus, Kennedy and Bolitho (1984) state that "EOP is taught in a situation in which learners need to use English as part of their work or profession"(p. 4).

Question 9: Is the time allocated to the English course enough to you to use the language effectively?

	Number	P %
yes	12	40 %
no	18	60%
Total	30	100 %

Table (8): Students' satisfaction of the time allocated to the English language course

The students' answers represent 60%. It is obvious that most of the respondents stated that they were unsatisfied of the time assigned to the English language course and it was not adequate to achieve the required competence in the English language. Robinson (1989) considers that time is an essential factor which must be taken into account when conducting an ESP course and he wrote that " … ESP courses are normally constrained by a shortage of time"(p.398).

Question10: Which aspects of English language would you suggest to be focused on in the course?

Choices	Total (n=30)	%
Grammar	**9**	**30**
Technical vocabulary	**15**	**50**
Listening comprehension	**17**	**56.6**
Speaking skills	**27**	**90**
Writing skills	**18**	**60**
Communication skills	**24**	**80**
Others (please specify	**-**	**-**

Table (9): Students' results regarding the language aspects of the English language course

The percentages on Table (9) below refer to choices indicated by the respondents. Table (9) can be read on the principle of the highest percentage summed up for the individual answers. It is noticed that the majority of the students gave priority to speaking skills (90%); 80% for communicative skills; 60% for writing

skills; 56.6%   for listening comprehension; 50% for technical vocabulary; and, finally, 30% for grammar.

4.2.2 Perceptions of Teachers

Perceptions of English teachers regarding their English teaching methodology, the student's motivation and English instruction at The Department are examined. The English teachers' questionnaire provided some information regarding the nature of the English course given to the Petroleum Engineering students.

4.2.2.1 Background information

This section intended to collect personal information from the teachers. It indicates that three teachers of the sample are one female and two males and they all have got a "licence" of English. The most experienced one in terms of teaching English had an experience of two years and they all are part-time teachers. Only one teacher has taught in other Departments while others have not. On the other hand, two teachers in the sample have not been teaching English to specialist classes before and no one of them have been training in ESP but all of them think that they need it. In view of that, Hutchinson and Waters (1987) state that "Many teachers who have trained for General English or for the teaching of Literature may suddenly find themselves having to teach with texts whose content they know little or nothing about" (p.160).

4.2.2.2 Methodology

This section was designed to identify the teachers' perceptions regarding their English language teaching methodology. The teachers' responses to the first and second questions state that vocabulary lists, sets of grammar rules, memorization, and written language are the methods used by the teachers, in addition to textbooks specifically related to Petroleum Engineering and documentation used by the students in their own field are the materials used. This indicates that all teachers have used the grammar-translation method to teach English. Hence Yule (2006) state that 'although this method clearly produced many successful L2 users over the centuries...' (p.165).

All the respondents have ticked the 'no' answer of the third question. Thus, the teachers do not use any programme of English language proposed or prescribed by the Department the students belong to. In this account, Kennedy and Bolitho (1984) write that "ESP programmes are often the indirect result of political decisions made at governmental level about the role of English within the country in which the learner is studying. These decisions may restrict or widen the role, and hence the use, of English within the community"(p.11).

According to the answers of the fifth question, using translation when teaching is much more favored by all the teachers. The last option "not specified" does not add anything new. About some methods of English teaching, Kennedy and Bolitho put "Many of the techniques traditionally used in ELT work can be exploited in ESP vocabulary teaching especially at the early stages when both subject and linguistic content are at an elementary level." Among these methods, they mention translation "...translation may be preferred if the teacher is competent in the student's language as well as English" (ibid, p.59).

The last question, the teachers' answers are oriented towards the options "b" in which two teachers has been focused on and one teacher has been focused on "c". The option "a" has been left. The option "c" identified as being *idiomatic expressions* and *printed conversation* appears to distracting students' understanding and forces the language teachers to adopt the translation method. Hence 'translation' of particular kind can be a useful pedagogic tool in an EST program (Mackay and Mountford, 1978, p.13).

4.2.2.3 Student Motivation

This section is developed to assess the teachers' views regarding the student motivation. All the teachers indicate that Petroleum Engineering students are not motivated in learning English language. Most of these students are affected by their previous learning of English. According to the language teachers students are not capable of ameliorating their level because they have a weak proficiency in English inherited from secondary school learning. In addition, English language course which is either at afternoon, at the end of the week or after the 'TP' students' classes.

Depending on the number of students in the classes the English classes takes place under the lecture (*Cours*) form. By 'Cours' is meant a lesson followed by varied activities such as grammar exercises, reading a text aloud, etc.

4.2.2.4 English Instruction

The last section intended to collect the teachers' opinions about the English instruction in the institute.

All the respondents to the first and second questions indicated that they agreed with these ideas about English in the Department. In view of that Robinson (1991) saw the role of the institution as "there may be an institutional (or even national) requirement to study English, usually because of the known role of English as an international language of communication, trade and research"(p.4).

In the third and fourth questions, all the teachers thought that the English instruction should focus on English needed rather than on general English. Hutchinson and Waters (1987) think that "In terms of language content, there is little reason why, say, a Biology text should be more useful to a biologist than, say, a Physics text" (p.165). According to the last questions, no teacher in the sample has further comment on language instruction in this Department. Therefore, it is possible to say that they are satisfied.

Undoubtedly, the interpretation of the students' questionnaire has helped us to discover lacks and wants perceived by the students. As well, the results of the language teachers' questionnaire pinpoint some areas in urgent need for solution.

4.3 Discussions of the results

After the analysis of the two questionnaires, we attempt to discuss the findings of teachers' perceptions and the students' perceptions.

4.3.1 Weaknesses of the nature of ESP at the DPE

It is seen that a certain number of issues has appeared throughout the appreciations enounced by language teachers. These concerns seem to be causing frustration and

perhaps dissatisfaction. In fact the results have reinforced most of our preliminary perceptions concerning ESP teaching/learning situation at the DEP. That is to say, many aspects of ESP process have not been taken into great consideration.

For instance, most of the language teachers have known a significant mobility and there have been a few cases of which they have spent a sufficient period of time at the DPE. However, in this case the language teacher is unable to assess and evaluate the results of his or her work because he will leave the department at the end of the year. According to Dudley-Evans & John (1998):

> "…ESP practitioner has five different roles and they state that "ESP work involves much more than teaching. We see the ESP practitioner as having five key roles: teacher, course designer and materials provider, collaborator, researcher, and evaluator" (p.13).

A second significant problem has emerged from the direct implication of the Department the students come from. This Department itself has not been able to specify to the language teacher the content of programme to be taught and the predetermined objectives for which this English language learning is put. Consequently, most language teachers have been left acting teaching in the way they thought appropriate.

4.3.2 The Students' English Language Needs

The discussion of the results was based on Hutchinson & Waters's (1987) target needs, regarding the students' necessities, lacks and wants. It is noticeable that English is very important for students in their field of studies; also they have expressed a favorable attitude towards English learning at the beginning of their studies.

First of all, the results which were shown on Table (3) represent the Petroleum Engineering students' English language necessities .The results present the English language skills that students would most like to learn, which are: writing an exam answer, reading textbooks and course handouts, following lectures, reading study notes, listening to instructions and explanations. These are what the students have to know in order to function effectively in the target situation. Moreover, the

findings of the current study confirmed the significant role of English in the engineering area as demonstrated by previous researchers (e.g. Chen, 2006; Ekici, 2003; and Pritchard & Nasr, 2004).

Secondly, regarding the petroleum engineering students' English language lacks, the findings on Table (3) reveal that they are unable to practise effectively the four skills needed to master the language. They rated themselves in listening, reading, writing, pronunciation, vocabulary, and grammar skills being as at the average level. On the other hand, they described themselves to be weak in speaking and communication skills. In view of that, relying on Chambers' work (1980), Robinson (1989) writes "An important consideration is the degree of proficiency expected in the target situation" (p. 402).

Finally, in terms of the English language' wants, Petroleum Engineering students on Table (4) indicate they want more training to develop their performance in the English language. A correlation can be drawn with the self-ratings of their ability in performing the English language skills. In terms of needs of the skills, the students have concentrated much more efforts on and developed a confidence in, speaking and listening rather than reading and writing. One can justify this difference by the fact that there has been much demand on these skills.

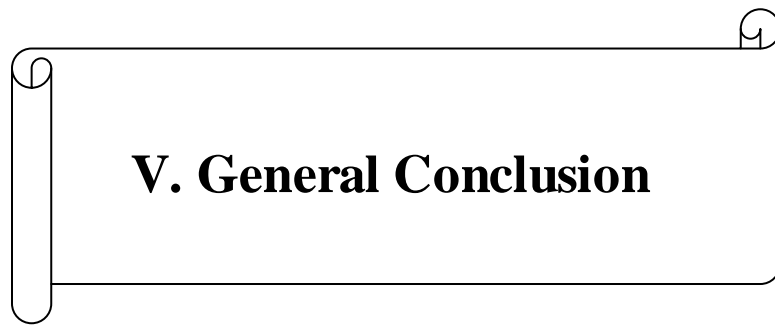### 4.3.3 The Students' Perceptions of the English Language Course

The attitudes and expectations of the learners and the specifications of the official curriculum will determine and transcribe the effectiveness of a language program (Nunan, 1989, p. 176). In view of that, almost the Petroleum Engineering students in our study revealed that the current English language course is not based on predetermined objectives and they would like to take EOP type of English course. Moreover, the results indicated that one semester is not enough for the English course to help them gain proficiency in English. When designing an ESP course, the majority of the respondents affirmed that you should give the priority to speaking, communication, and listening skills.

4.4 Conclusion and recommendations

The analysis of the English language teachers' and students' questionnaire has permitted to define some areas of the nature of ESP in urgent need for solution at the DPE. In addition, it helped us to discover lacks and wants perceived by the students, and throughout our study , it is clear that there is no consistent and thorough needs analysis carried out either at the beginning or even in the middle of the ESP teaching-learning process at the DPE.

The results of the study may be an aid to the further development of ESP programme basing on the English language needs of students and improvement of the current programme to better meet the needs of the students at the Petroleum Engineering Department at Kasdi Merbah university, Ouargla. Thus it is recommended:

- The current English language programme must be shifted to an ESP programme to meet the specific needs of students.
- When designing an ESP course, the priority should be given to speaking, communication, and listening skills among the other language skills.
- The number and duration of courses should be increased so that English language becomes an essential course at the FPE.
- When ESP course is prepared and developed, much more attention should be given to the affective factors and the students' needs.

V. General Conclusion

V. General Conclusion

Taking into account the main concepts of needs analysis, we have relied on the different contributions developed by specialists such as Hutchinson and Waters (1987), Dudley-Evans & John (1998), and Richards (2001). In our study, we have focused on Target Situation Analysis (Hutchinson and Waters, 1987) as a tool of investigation. We have put in practice this basic method in the study of students' needs in ESP at the Department of Petroleum Engineering, Kasdi Merbah University, Ouargla.

The findings elicited from the five research questions offer a perspective from which to identify "the gap between what is and what should be" (Brindley, 1989, p. 65) with regard to the Petroleum Engineering students' language needs, more specifically, regarding the significance of English language for their studies, the frequency of the English language skills used, their proficiency in performing the language skills (lacks), the areas of language use that they need training in (wants), and their preferences for the English language course. Such results emphasize that the students are aware of the significance of English in engineering education.
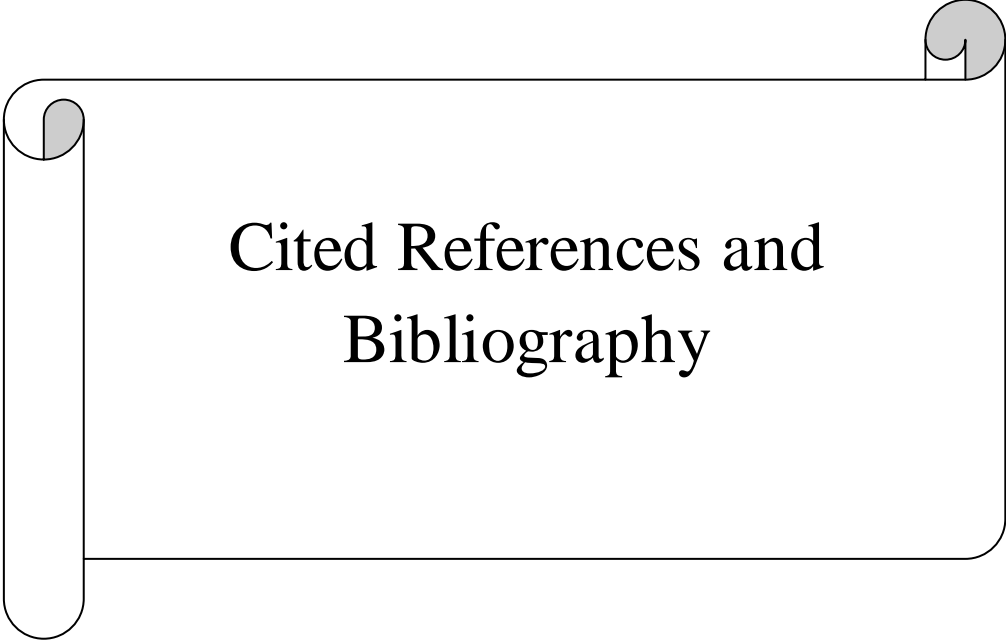
In terms of the Petroleum Engineering students' language needs, for example, in response to the first and third questions of the questionnaire, Petroleum Engineering students considered English language to be important for their studies, also they perceived reading, listening, and writing sub-skills to be most likely used. Petroleum Engineering students in EFL context confirmed the significance of the need to develop specific language skills which would help them perform effectively in their target situation. This is based on their answers to the fourth question of the questionnaire which indicate that most of the students surveyed felt that they are unable to use English effectively. Along the same line, they expressed the view that they would like continued train to improve ability in all the language skills.

With reference to the students' preferences to usefulness of the English language course, the findings show that the English language course does not meet their language needs and they need more time to enable them to use the language well. Additionally, the respondents preferred to take EOP courses and emphasized

that speaking, communication and listening skills are the basis when the course is designed.

Recently, In Algeria English language has become an essential requirement in the academic domain and the workplace. Our study concludes that English language courses taken by Petroleum students did not meet their needs and did not enable them to use English effectively. Thus, proficiency in English does need to be treated urgently, that is to say, the students do need help based on their needs and wants. Ounis (2005) investigated the needs of Agronomy students in the use of English for Specific Purposes at Batna University. The findings revealed the positive opinions of both ESP teachers and students on the needs of using the specific English courses tailored for Agronomy students. The four major skills were greatly needed. Reading skills were considered as the most important. In a similar vein, the study of Dakhmouche (2008) attempted to show that the application of some strategies of predetermined objectives would enhance better the students achievements in learning English for specific purposes.

In a few words, our study explored Petroleum Engineering students' English language needs. We agree with Richards et al. (2002) in that carrying out an NA research 'makes use of both subjective and objective information (e.g. data from questionnaires, tests, interviews, observation) and seeks to obtain information on: *a)* the situations in which a language will be used (including who it will be used with), *b*) the objectives and purposes for which the language is needed, *c*) the types of communication that will be used (e.g. written, spoken, formal, informal), and *d*) the level of proficiency that will be required'(p.354). What's more, analyzing learners' needs, the findings reveal that the present language course is inappropriate to the students. It is hoped that the outcomes serve as guidelines to what should be done in the design of the ESP syllabus offered to the Petroleum Engineering students at UKMO.

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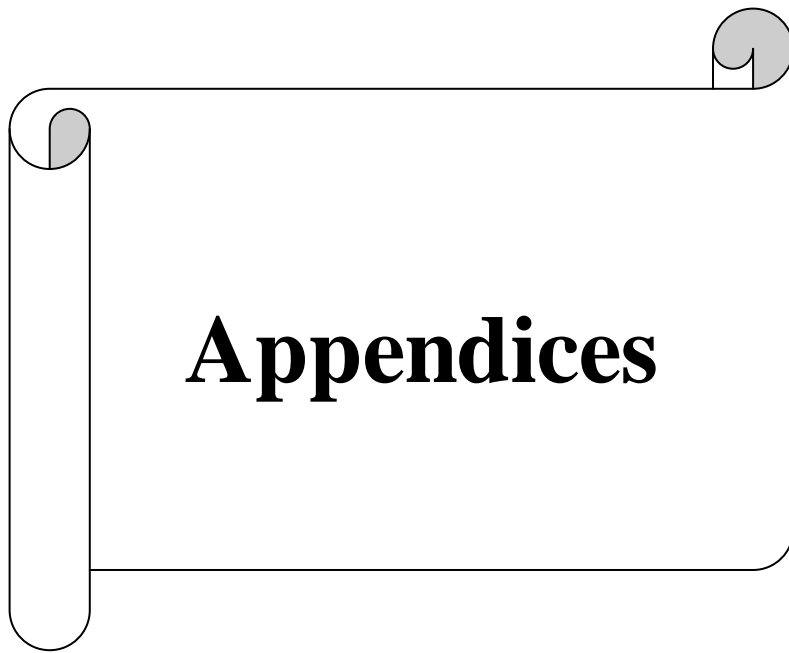
Appendices

Appendices

Appendix A: Teachers' Questionnaire

This questionnaire constitutes an essential part of my master thesis on ESP needs analysis. Its main objective is to investigate the Engineering Petroleum students' needs. You are kindly requested to fill it out and your voluntary participation is appreciated.

I. Background information

First, please provide some information about yourself.

1. Gender: F ☐   M ☐

2. What qualifications do you have? (Please list below)

………

3. How long have you been teaching English?   ….Years

4. How long have you been teaching English at this institution?   ….Years

5. What is your status as a teacher: Fully -fledged *(Permanent)*? ☐   Part-time *(Vacataire)*? ☐

6. Have taught in other departments?   Yes ☐ No ☐

7. Have you had some training in ESP?   Yes ☐ No ☐

8. If not, do you think you need it?   Yes ☐ No ☐

II. Methodology

1. What teaching methods do you use?

………

2. What teaching materials do you use?

………

…………………………………………………………………………………………………

3. Do you follow an official programme?   Yes   No   ☐   ☐

4. If yes, what is it? (if possible, please attach a copy to this questionnaire, otherwise give a brief summary below, you can also use the space at the back of this sheet for more details answer)

………

……………………………………………………………………………………………..

5. In the course of your present teaching, do you sometimes use translation from one language to another?   Yes   No   ☐   ☐

6. When you translate English into another language, what are the aspects you tend to focus on?

   a) Grammatical?   ☐

   b) Structures/notions?   ☐

   c) Lexical items?   ☐

   d) Others? (Specify)....................

III. Student Motivation

1. How motivated are your students?   Very ☐   Quiet ☐   Not ☐
2. Do you know why?   Yes ☐   No ☐
3. Why are/aren't they motivated? (Give your answer below)

……

……

4. How many students are there in your classes?   Class1:…   Class2:…   Class3:…

IV. **English Instruction**

Please, give your opinion about English instruction in the Department.

1. Indicate, how far you agree with these ideas about English at the Department:

   Strong agree   ☐ Agree   ☐ Disagree   ☐

2. More time should be allotted to English instruction: Agree   ☐ Disagree   ☐
3. The teaching should focus on general English: Yes   ☐ No   ☐
4. The teaching should focus on English needed: Yes   ☐ No   ☐
5. Finally, do you have any further commentary on English language instruction in this department?

   Yes   No   ☐   ☐

6. If so, please use this space:

……

……

……

……

…………..

Thank you

Appendix (B): Students' Needs Analysis Questionnaire

This questionnaire constitutes an essential part of my master thesis on ESP needs analysis. Its principal objective is to investigate the Engineering Petroleum students' needs. You are kindly requested to fill it out and your voluntary participation is appreciated.

---

1. **Age…** **Gender:** F ☐ M ☐ **Level of study**…
2. Do you consider English important for your studies? Yes ☐ No ☐
3. How would you describe your attitude towards English language learning at the beginning of your studies? Favorable ☐ Unfavorable ☐
4. What sub skills would you most like to use now? (please give 1= Always and 5= Never)

English language skills:

a) **Reading sub-skills**:

	Always	Sometimes	Rarely	Never
Reading textbooks and course handouts	☐	☐	☐	☐
Reading technical articles in journals	☐	☐	☐	☐
Reading technical manuals	☐	☐	☐	☐
Reading study notes and texts on computer	☐	☐	☐	☐

b) **Writing sub-skills:**

Writing short projects and assignments	☐	☐	☐	☐
Taking notes in lectures	☐	☐	☐	☐
Writing exam answer	☐	☐	☐	☐
Writing text	☐	☐	☐	☐

c) **Listening sub-skills:**

Following lectures	☐	☐	☐	☐
Following question/answer sessions in class	☐	☐	☐	☐
Listening to spoken presentations	☐	☐	☐	☐
Listening to instructions and explanations	☐	☐	☐	☐

d) **Speaking sub-skills:**

Participating in discussions	☐	☐	☐	☐
Asking questions in class	☐	☐	☐	☐
Giving spoken presentations	☐	☐	☐	☐
Others (please specify)	☐	☐	☐	☐

5. Would you say that at the present time, your proficiency in English language is:

	Weak	Average	Good	Very good
Speaking	☐	☐	☐	☐
Listening	☐	☐	☐	☐
Reading	☐	☐	☐	☐

Writing	☐	☐	☐	☐
Grammar	☐	☐	☐	☐
Vocabulary	☐	☐	☐	☐
Pronunciation	☐	☐	☐	☐
Communication	☐	☐	☐	☐

6. Which of the following English language sub skills do you want or need to study? (1= no training needed and 4= a lot of training)

a) Reading sub-skills: No training needed   A lot of training

- Reading textbooks and course handouts ☐ ☐
- Reading technical articles in journals ☐ ☐
- Reading technical manuals ☐ ☐
- Reading study notes and texts on computer ☐ ☐

b) Writing sub-skills:

- Writing short projects and assignments ☐ ☐
- Talking notes in lectures ☐ ☐
- Writing exam answer ☐ ☐
- Writing text ☐ ☐

c) Listening sub-skills:

- Following lectures ☐ ☐
- Following question/answer sessions in class ☐ ☐
- Listening to spoken presentations ☐ ☐
- Listening to instructions and explanations ☐ ☐

d) Speaking sub-skills:

- Participating in discussions ☐ ☐
- Asking questions in class ☐ ☐
- Giving spoken presentations ☐ ☐
- Others (please specify) ……………………………………………………………………..

7. How useful is the English course with regard to your English language needs?

Useful ☐   Of some use ☐   Not useful ☐

8. Which type of English language course would you like to attend?

- English for academic purposes (EAP) ☐
- English for occupational purposes (EOP) ☐
- General purposes English (GE) ☐
- Others (please specify)…………………………………………………………….

9. Is the time allocated to the English course enough to you to use the language effectively?

Yes ☐   No ☐

10. Which aspects of English language would you suggest to be focused on in the course? (you can choose more than one)

Specific grammar ☐

Technical vocabulary ☐

General vocabulary ☐

Reading comprehension ☐

Listening comprehension ☐

Speaking skills ☐

Writing skills ☐

Communicative skills ☐

Others (please specify)…………………………………………………..

Thank you

Abstract

This research is concerned with the learning of English as a foreign language. It aims at identifying the English language needs of students in English for specific purposes at the Department of Petroleum Engineering, Kasdi Merbah University, Ouargla.

The Petroleum Engineering students have low proficiency in English and their English language course is more removed from the students' needs. This has led us to conduct a case study to examine the Petroleum Engineering students' English language needs.

To collect the data the main instrument used for the study was needs analysis questionnaire administered to thirty students. The findings are analyzed and described quantitatively and qualitatively. The results emphasized the importance of English for Petroleum Engineering students and identified the students' necessities, lacks and wants with regard to English language skills.

The findings show that speaking and listening should be emphasized more in order to fulfill the ESP needs of Petroleum Engineering students and the current language course is inappropriate to them. It is hoped that the results serve as guidelines when developing the ESP program to the petroleum engineering students at Kasdi Merbah University, Ouargla.

Keywords: English for Specific Purposes, English for Science and Technology, Needs Analysis, Target needs

ملخص

موضوع هذه الدراسة يتمحور حول دراسة وتحليل متطلبات وحاجيات طلبة قسم المحروقات وكيمياء بجامعة قاصدي مرباح ورقلة.

هذه المساهمة تبين أن تحليل هذه المتطلبات لا يؤثر على تدريس اللغة الإنجليزية لأهداف خاصة وممارستها بل يتطرق أيضا إلى كشف بعض المشاكل والنقائص.

لقد اتضح لنا أن مستوى الطلبة ضعيف في استعمال اللغة الانجليزية وان المنهاج التعليمي لهذه اللغة غير مبني على تحليل متطلبات المتعلمين.

اعتمدنا في المرحلة التطبيقية على استعمال استبيان موجه إلى ثلاثين طالبا في قسم المحروقات وكيمياء وكانت دراسة وتحليل النتائج كما ونوعا، حيث بينت أهمية اللغة الانجليزية في مجال الهندسة البترولية وهذا ما يفرض على الطلبة إتقان مهارات هذه اللغة.

نتائج هذا البحث أثبتت أن مهارة التحدث والاستماع في اللغة الانجليزية من أكثر متطلبات الطلبة وان المنهاج التعليمي الحالي لهذه اللغة غير ملائم لهذه المتطلبات.

وفي النهاية وعلى هذا الأساس، فإننا نقترح بعض الحلول والتي في نظرنا قد تساهم في تطوير وتحسين تدريس اللغة الانجليزية لأهداف خاصة لطلبة قسم المحروقات وكيمياء بجامعة قاصدي مرباح ورقلة.

كلمات مفتاحية : الإنجليزية لأهداف خاصة، الإنجليزية للعلوم والتقنيات، تحليل المتطلبات، وحاجيات الهدف.