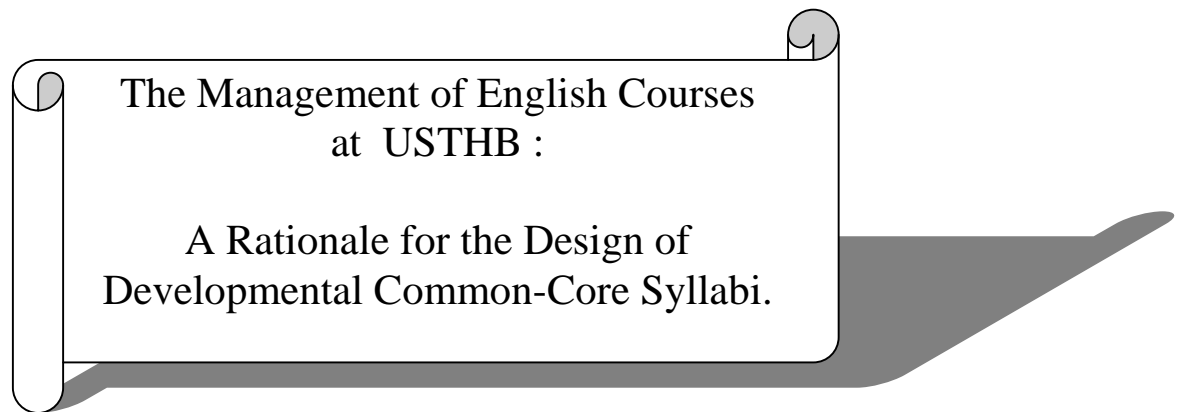


DEMOCRATIC AND PEOPLE'S REPUBLIC OF ALGERIA
UNIVERSITY OF ALGIERS
FACULTY OF ARTS AND LANGUAGES
DEPARTMENT OF ENGLISH



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I hereby declare that the substance of this dissertation is entirely the result of my investigation and that due reference or acknowledgement is made, whenever necessary, to the work of the other researchers.

“...the experience of developing a course enables teachers to make sense of the theories and expertise of others because it gives them opportunities to clarify their understanding of theory and make it concrete.”

(Graves, 1996: 6)



Dedication

Through this work, I would like to pay a tribute to my dear departed:

Father who devoted his entire life to his country, then to his family without expecting something in return. He had always prodded us into going further in our studies. He would have been so happy to see this work finished.

My eldest brother who devoted his entire life to the field of education and left us before reaching the age of retirement.

My father-in-law whom I did not have the opportunity to know because he laid down his life for his country.

I would also like to express all my love and gratitude:

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To all my friends in Bejaia, Algiers, Tizi-Ouzou, and everywhere else...

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Abstract

The purpose of this study emerges from a basic concern which is: why do students not seem to progress in their learning of English? Why does their general command of it remain low after so many years of study? What can be done to improve the teaching/learning situation?

Several, worth exploring questions have thus been derived from it, mainly:

Why do our learners still meet difficulties in reading comprehension of subject-related documents, although they regularly practise this skill in class?

Why do they still have problems with the basics of the English structure (like tenses, articles, modals), and are unable to write adequately, although 'grammar' is the most practised component during the course?

Why are most of their questions, requests for clarification during the course of English, asked in French or Arabic after so many years of English study?

Why is the rate of their absenteeism so high, at all levels during the course of English?

Our aim through this work consists in suggesting a rationale for different syllabi related to the disciplines existing in our institution. This rationale constitutes a global educational management of the course of English at the USTHB, and it may be seen through a continuum. The first point of the latter starts with the introduction of English study in our learners' curricula, and ends with it. The purpose of this management resides in following the students' learning, and in trying to assure a smooth transition, from adapted, general reading to authentic, subject-related reading. There is a general agreement upon the latter to be the students' main target. This transition is also catered for in the building up of the relevant skills and strategies.

As for any ESP course, an investigation into the teaching/learning situation was necessary, in order to identify the various needs of our learners. The results of a proficiency test, administered under the same conditions to one hundred students, confirmed the assumption concerning their low level. Then, a needs analysis following the learning centred approach was developed, using research tools like informal interviews, and questionnaires. The aim was to find answers to the research questions, and to identify the objective as well as the subjective needs of our learners. The areas of investigation therefore, concerned the present situation (background, profile of students, teachers), the learning needs, to be inferred from the learners' difficulties or lacks, the teachers' methodology, the teaching experience, as well as the materials in use.

Triangulation was adopted. Thus, sampling concerned various categories of informants. We may cite the students (under-graduates, post-graduates, former post-graduates) from different levels and disciplines, as well as the language/subject-matter teachers, in addition to some members from the administrative staff..

This diversity of informants, of the ways of investigation (test, discussions, questionnaires, informal interviews), as well as my own intuition as a teacher/researcher in the same institution reinforced the reliability and validity of the gathered data.

The results of the needs analysis allowed the identification of the non-apparent, and specific features related to the teaching/learning situation of the course of English in our institution. We may cite the lack of variety of the pedagogical activities, mainly the reading ones, the teaching of grammar in a discreet way, and the unsuitability of the reading materials. Moreover, the course as it is presently run fails to meet the academic and target needs of the learners. It is not directed towards the reading skills and strategies inherent to scientific discourse, nor to writing for research. The results also

helped in specifying the different types of content related to the syllabi encompassed within the continuum. The latter illustrates, as already mentioned, a type of management whose objectives may be sketched as follows:

- Those related to the 2nd/3rd years' syllabi which are intended to meet the learners' academic needs. Their aim consists mainly in enabling them to reach the basic level of English necessary to start training in reading comprehension of general science texts.
- While the objectives of the 4th/5th years' syllabi are directed towards training students in reading comprehension of adapted, specialised scientific and technical texts, in addition to developing their writing skills. The latter may be needed for occupational purposes, but also for academic purposes, in case they carry out their studies up to the post-graduate level.
- As for the objectives related to the post-graduates' syllabus, they aim at meeting both academic and occupational needs. We may respectively mention, reading individually specific, subject-related documents for their research and synthesising; then, presenting papers, and attending conferences.

As for the types of content related to the different syllabi, they were specified according to Stern's framework (1992). Thus, the proficiency, cognitive, transfer, and affective goals have been translated, respectively, into content as knowledge, content as skills and strategies, then content as attitude and awareness. Naturally, further research will be necessary if a close specification of the discursal clues inherent to a particular speciality is needed.

The ultimate goal of this research then, remains this global management which constitutes the rationale for the different syllabi. We hope it will contribute at building up our learners' required abilities, and in directing their training towards their target needs, in order to become independent, autonomous users of English..

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Introduction

Introduction

This research deals with an investigation into the course of English at the University of Sciences and Technology Houari Boumediene in Algiers.

My concern is an attempt to understand: Why do not our learners seem to progress in their learning of English, and what can be done to improve the teaching/learning situation?

From this basic concern are derived some intriguing questions such as:

Why do our learners still meet difficulties in reading comprehension of subject-related documents, although they regularly practise this skill in class?

Why do they still have problems with the basics of the English structure (like tenses, articles, modals), and are unable to write adequately, although 'grammar' is the most practised component during the course?

Why are most of their questions, requests for clarification during the course of English, asked in French or Arabic after so many years of English study?

Why is the rate of their absenteeism so high, at all levels during the course of English?

Some answers to such questions may easily be guessed. There is indeed a great deal of information already accessible, since I am conversant with the teaching situation of our institution. We may mention the lack of reading materials, the insufficiency of the amount of time devoted to English instruction, the non-existence of official programmes, and the frequent change of the part-time teachers. Such information removes straight off the illusion of any effectiveness or progress of learning. However, there is a need to know more about some non-apparent aspects like: What are the profiles of both the students and teachers? What about, respectively, their learning and teaching experiences? How the course is run? How reading is practised? Is there any practice of listening, writing, or oral skills? What are the different activities practised in class? How frequently are they practised? What kind of materials the teachers use in class? What do students think of the course of English? What are the suggestions of both the teachers and the learners? What do the latter need to learn, and how do they want to learn? How do teachers perceive their students' needs? Etc.. For such questions, there is no means to obtain information if not through a detailed needs analysis. Hence, research tools like interviews and questionnaires were designed so as to elicit the

maximum of data. The latter will help in identifying the potential/constraints of the teaching/learning situation, and the learning needs of our learners.

My aim through this work, is to make some suggestions concerning a rationale for different syllabi related to the existing levels/disciplines, and to set the course's objectives. These constitute the general framework of principles into which the various syllabi fit, hence the concepts of 'management' as well as of 'common-core syllabi' given in the title.

This work is not intended to 're-invent the wheel'. It is just a glimmer of hope that could be added to the interesting contributions of some researchers, to shed light on the situation of ESP in Algeria. Newsletters indeed were edited, like the ORANESP 1993, by Miliani (editor) and Flook (associate editor). Like the latter, other ESP advisers such as Freeman (early 1990's) highlighted the field of ESP in our country. Thus, thinking has been engaged over the ESP component in teaching, like "Is There a Need for an ESP Component in the Curriculum of the Licence?" (in EL MOBARIZ, 1993) by Khaldi, and several theses were defended in this field. We may cite such titles as: Some Answers to IAP Students' Problems in Writing and Reading for Comprehension (Nouar, 1992); Developing a Reading Comprehension Syllabus for Students of Economics (Hamada, 1991); The Rationale of a Proposed Syllabus for the Teaching of English in the Institute of Sociology in Annaba (Terki, 1990); and Designing a Syllabus for a Group of Third Year Chemistry (Kadouri, 1994).

So, the topic of my work also deals with a rationale for the design of English syllabi, and it points out the specific problems that characterise the teaching/learning situation of the course of English in our institution.

However, it is concerned as well, with the educational management of this course at the USTHB as a whole, because there are other problems concerning its organisation, like its introduction in the different curricular, which is not uniform. So, although the syllabi, whose rationale is suggested in this work, will be specific to the various disciplines within our institution, there are still some global, underlying objectives behind the course of English at the USTHB, in general. Within this line of thought, Hutchinson and Waters (1987: 84) state that:

“ Uniformity is a necessary condition of any institutionalised activity, such as education. It is deemed to be important that standards within a system are as equal as possible. A syllabus is one way to which standardisation is achieved (or at least attempted). ”

Thus, among those underlying objectives common to the different syllabi, we may mention:

- Those related to the 2nd/3rd years' syllabi which are intended to meet the learners' academic needs. Their aim consists mainly in enabling them to reach the basic level of English necessary to start training in reading comprehension of general science texts.
- While the objectives of the 4th/5th years' syllabi are directed towards training students in reading comprehension of adapted, specialised scientific and technical texts, in addition to developing their writing skills, in order to prepare them for report writing. The latter may be needed for occupational purposes, but also for academic purposes, in case they carry out their studies up to the post-graduate level.
- As for the objectives related to the post-graduates' syllabus, they aim at meeting both academic and occupational needs. We may respectively mention reading individually specific, subject-related documents and synthesising, since the learners have to read for their research as well as take notes. Then, they will be trained to prepare presentations, and take part in debates as a simulation of some target activities. The latter may consist in presenting papers, and attending conferences. Naturally, the other skills, i.e., listening and speaking are integrated, though with less emphasis than reading or writing . The reason for this is the limited amount of time devoted to English study, and the necessity to establish priorities in teaching.

Obviously, these suggestions constitute a global rationale, and are in no way meant to remain static. It is desirable that, in later phases, they should be reviewed, refined, and adapted appropriately to meet the requirements of each particular discipline.

Thus, these global objectives constitute the educational management mentioned in the title. It follows a certain continuum then, as in any learning. However, it lays the foundations on which will be built the different syllabi that will subsequently be specified for each discipline and level. Such syllabi therefore share common objectives through which, we aim at achieving a smooth transition from the introduction of English study up to its end, taking into consideration mainly, the objective needs of our learners.

The ultimate goal is to enable them to read and understand subject-related documents, as well as to use English in writing abstracts, reports, or in publicising

scientific/technical articles, without waiting for any help. In other words, we aim, at the risk of being too ambitious, at preparing our learners to become autonomous, and independent users of English.

To describe however the context in which the course of English is run, it may be useful to present the university itself. Originally called 'The University of Sciences and Techniques of Algiers', this university was created in nineteen seventy four (April 25th, 1974). It has eleven institutes (Computer Sciences, Earth Sciences, Chemistry, Industrial Chemistry or Chemical Engineering, Natural Sciences, Mathematics, Electronics, Mechanical Engineering, Physics, and Applied Studies). English is generally introduced in the third year of under-graduate studies. In some institutes however, it starts earlier (in the second year), or much later (in the fifth year). The different degrees which are prepared consist in: a four year degree of superior studies 'DES', a fifth year degree of engineering 'Ingeniorat d'Etat', and a three year degree of applied studies 'DEUA'. The latter does not allow its holders to have access to post-graduate studies, as it represents studies of short term (three years), and for this reason, this institute was not concerned by this work which aims at a follow-up of the learning of English even at the post-graduate level. The 'Magister' is the first post-graduate degree. A change has occurred recently and concerns the grouping of institutes in a system of 'Faculties'. As the centre of languages is not affected by this change, there is no need to expand on it.

The course of English, scheduled for one hour and a half per week, is compulsory at the under-graduate level as well as at the first year of post-graduate studies. It is run at the Centre of Intensive Teaching of Languages (within the same university), by language teachers, most of whom are part-time teachers, and in some institutes, by subject-matter teachers i.e., those who teach their subject at the same time. This difference between the profiles of teachers is also present in the course of English which varies from a general English course, to a highly technical course which rather focuses on terminology teaching. The methodologies therefore, also differ. There are no official programmes, and the only official objective of the course of English in this institution is the teaching of terminology.

As we shall show, the majority of teachers lack training in F.L. teaching, and in ESP. Some are specialised in teaching technical and science courses (the case of subject-matter teachers), while most of the others (the part-time teachers) have obtained a 'licence' degree (B.A.) in teaching or translation only recently .

As far as reading materials are concerned, most of them are general English like The New Cambridge English Course by Swain & Walter (1990), the English Course (the three levels) of the Linguaphone Institute (1971), but there are also some few technical books like English For Computer Science by P.C. Brown and N.D. Mullen (1984), and general science books like the Nucleus series by M. Bates and T. Dudley-Evans (1981), but the number and variety of these materials are very limited, and most of them are older versions.

Moreover, there are seven language laboratories with audio tapes based on the series of the two first books cited above. However, listening is rarely practised for the difficulty (according to the head of the centre) to schedule the important number of students in those laboratories whose number of seats, does not exceed thirty. Therefore, the majority of courses take place in ordinary classrooms.

The information given above (lack of materials and their quality, lack of teachers' training...) constitutes some of the aspects related to the teaching/learning situation concerned by the investigation. As for the outline of the research, it deals first with the review of literature.

So, to throw light on the investigation being carried out, and find appropriate arguments that would reinforce the findings coming out of the data analysis, it seemed relevant to immerse oneself with literature about course design, ESP, needs analysis, and reading (chapter 1). Thus, as the present research aims at designing a rationale for developmental common-core syllabi based on the students' specific needs (ESP), a thorough knowledge of the different theories related to needs analysis is required. A comprehensive knowledge in reading theory is also needed since the students' main target is to read a great amount of literature for their research.

To carry out this research, a rigorous methodology should be followed, and here, it should be noted that Bell's (1987) as well as Shohamy's and Seliger's (1989) guides to research were very helpful. The research questions are stated in chapter two, and as any research question should be validated, a proficiency test was administered to the students to find out about their level in English, since their general command of it remains low at the end of their studies. The way of its administration is described and its results are illustrated by some figures, after their discussion.

The next section in chapter two deals with methods of sampling, the research tools and the way they were used in the investigation. Their validity and reliability are checked through triangulation.

In chapter three a presentation of the data analysis of the students' questionnaires is made for each category (the under-graduates', the post-graduates', and the former post-graduates), followed by that of the teachers'. Results are summarised and given in tables, then illustrated by charts to facilitate their reading.

All the results of the data analysis are recapitulated in chapter four, in reduced tables for a better comparison since teachers' and students' questionnaires (the three categories) were designed in such a way as they would facilitate the matching of their respective views. All their suggestions are summarised, and reported. Then, according to all the feed back yielded from this study, and in the light of the rich literature read in this field, some suggestions and recommendations are made that we hope would contribute at least, to bring some help to the teaching/learning of English in this institution.

Chapter 1 : Review of the Literature

Introduction

1.1- Syllabus Design

1.2- E.S.P.

1.3- Needs Analysis

1.4- Reading

The review of literature in this research work will cover course design, ESP, needs analysis, and reading. It is important to know about course design as it is concerned with designing a rationale for developmental common-core syllabi, and E.S.P., since the course of English in this institution (USTHB) will be designed according to the different needs of the students, taking into consideration their specific areas of speciality, particularly at the post-graduate level when learners are confronted to authentic materials in English. Thus, to establish those needs, a needs analysis should be carried out making it therefore necessary to shed light on its different trends and know about the areas that should be investigated. In the case of this study, not only the students' wants and targets needs will be concerned, but the teaching/learning situation as well. Discussing the reading process is also important because the students' major activity is reading specialised English documents as well as reading for research.

The first point in the review then, deals with course design. The latter, is sometimes associated with syllabus design, programme or curriculum. It may be useful therefore, to make a distinction between all these terms in the following section.

1.1- Syllabus design

'Curriculum', 'programme', 'syllabus', are words that are sometimes used to mean the same thing, i.e., a course content. A distinction should therefore be done, through the following definition:

« The terms 'curriculum' and 'programme',... describe the broadest contexts in which planning for language instruction takes place, either on the national level or for a community's schools. A 'syllabus', on the other hand, is a more circumscribed document, usually one which has been prepared for a particular group of learners. »

(Dubin and Olstain, 1986 :P3)

Here, the term 'syllabus' concerns a restricted audience, compared to 'curriculum' or 'programme'. The present research work aims at suggesting a rationale for the design of English syllabi, for a large institution (USTHB) which may be called a 'programme' or a 'curriculum' during the first stage of this suggested management or gradual preparation of students to be independent users of English. Indeed, a rationale for a

common core course is thought of for the first years of their course, generally from the third year, when English is introduced as a compulsory module and when the students begin to specialise (after science or technical common –core courses). Thus, a course of English too close to the students’ areas of speciality, may not be at this stage very useful, since learners do not yet have a sufficient command of their subject (or instruction in their speciality), in addition to their deficiencies in English. Within this line of thought, Holmes (1982), quoted by Hutchinson and Waters (1987 : 69) pointed that :

« In ESP the main problem is usually one of time available and student experiences. First, the aims may be defined in terms of what is desirable- i.e. to be able to read, in the literature of the students’ specialism, but there may be nowhere near enough time to reach this aim during the period of the course. Secondly, students may be in their first year of studies with little experience of the literature of their specialism...Accordingly both these factors...may be constraints which say right from the start, ‘ The aims cannot be achieved during the course’ . »

However, as the course (in the suggested rationale) becomes gradually closer to the students’ different specialities, the course content will be different from one discipline to another and it may then be more appropriate to speak of ‘syllabus’ rather than ‘curriculum’ or ‘programme’, particularly at the post-graduate level. The term which will therefore be used in this research work is ‘syllabus’. The latter is but a component of ‘design’ according to Richards and Rodgers (1982 : 157) who state that design :

« ...includes specifications of 1) the content of instruction, i.e., the syllabus, 2) learner roles in the system, 3) teacher roles in the system, 4) instructional materials, types and functions. »

As for the other components, they concern according to Richards and Rodgers, the use of the syllabus as they interact.

Coffey (1984, in West, 1994: 2) however, suggests a six-step model of course design consisting of:

*“1 selection of theory = nature of language: principles of restriction – e.g.
↓ communicative functions
2 needs analysis = a matching of vocational needs with the categories
↓ established*

3 *language realisation = the transforming of the functions, skills previously identified into language items*
↓
4 *course design = the ordering of the language items, by their relative importance and their sequencing*
↓
5 *course construction = the devising of strategies and techniques*
↓
6 *classroom teaching.*”

Accordingly, we can say that classroom teaching is a result of a careful and rigorous process. It starts with a consideration of a needs analysis results, based on one's view of the nature of language. Then, the identified skills and functions will be converted into language items. The final stages consist in sequencing those language items, as well as in devising the appropriate strategies and techniques. The approach towards language learning according to which we shall develop our needs analysis in this work will be elaborated on, in the sections related to ESP, needs analysis, and also in chapter two.

The core of 'design' then, seems to be the syllabus as it consists of several steps. Richards and Rodgers (1982: 161) state that 'syllabus':

« Defines linguistic content in terms of language elements : structures, topic, notions, functions, exchanges, or whatever. It also specifies the selection and ordering of particular language items to be taught which represent the elements. Finally, it defines the goals for language learning. »

A syllabus then, may be assigned to different roles which are dependent on the courses' objectives. For instance, Hutchinson and Waters (1987: 85-88) give examples of content lists from a range of ESP courses and distinguish between: a) the topic syllabus, b) the structural/situational syllabus, c) the functional/notional syllabus, d) the skills syllabus, e) the situational syllabus, f) the functional/task-based syllabus, g) the discourse/skills syllabus, and h) the skills and strategies syllabus. This separation between the different syllabuses remains however artificial, because most of them are generally integrated in teaching as stated by Hutchinson and Waters (ibid.,: 89):

“ Any teaching materials must, in reality, operate several syllabuses at the same time. One of them will probably be used as the principal organising feature, but

the others are still there, even if they are not taken into account in the organisation of the material”

So, several syllabuses may be operated and naturally integrated with the use of different teaching materials. However, they may be deliberately integrated to meet the objectives of a given course like in ESP teaching, and here lies the difficulty, as put forward by Swan (1985b, in Hutchinson and Waters, 1987:89):

“The real issue is not which syllabus to put first: it is how to integrate eight or so syllabuses (functional, notional, situational, topic, phonological, lexical, structural, skills) into a sensible teaching programme.”

It seems therefore necessary to integrate more than one syllabus to meet the objectives of a given teaching programme. Yet, the latter may still have gaps, as pointed out by Hutchinson and Waters (ibid.,: 85): *“Syllabuses cannot express the intangible factors that are so crucial to learning: emotions, personalities, subjective views, motivation.”* Here, it is up to the teacher to try, as possible, to remedy for some of what is missing and important for learning.

As for how to integrate syllabuses, and how much of them to integrate, depend on the course objectives which are themselves related to the learners’ needs.

Concerning our rationale for the design of English syllabi at the USTHB, it will be dealt with in the next chapter. For this sake, a detailed needs analysis will be given precedence -although a general frame for these developmental syllabi has already been sketched. And needs analysis is generally evocative of ESP, though any course is supposed to have as a basis the learners’ needs. Here, the distinction made by Hutchinson and Waters (1987 : 54) is worth mentioning :

« The tradition persists in general English that learner needs cannot be specified and as a result no attempt is usually made to discover learners’ true needs. Thus if we had to state in practical terms the irreducible minimum of an ESP approach to course design, it would be needs analysis, since it is the awareness of a target situation- a definable need to communicate in English - that distinguishes the ESP learner from the learner of General English. »

The learners’ needs seem then to have the priority in an ESP course rather than in any other course. ESP is also considered as an approach to course design and this is highlighted in the next section.

1.2- ESP

As stated earlier, the course of English in this institution of Sciences and Technology will be designed according to the different needs of the students, with a consideration of their specific areas of speciality. And it is a truism that specification of needs is a pre-requisite for an ESP course. Thus, it may be preferable to briefly, trace back the development of ESP and define it in relation to ELT, GPE and EST.

What can be first said about ESP is that it followed the different trends known about language description (see Robinson, 1991: 18). Indeed, ESP (English for specific purposes) is in fact part of ELT (English language teaching) and developments in both fields, paralleled each other. For instance, ESP was first concerned with ‘registers’ (lists of technical words, jargon) and inventories of grammatical structures (Herbert, The structural technical English, 1945). This led to ‘frequency studies’ which used statistical methods to calculate the frequency of occurrence of certain speech elements and establish lists of items for teaching purposes (see Robinson, 1991: 23-24). This parallels the lexical approach in E.L.T. As a matter of fact, no explanations were supplied but only descriptions. However, a shift of interest was witnessed from isolated lexical items towards the rhetorical functions of a discourse (Van Ek, The Threshold Level in a European Unit, 1975) and cohesion variables were encompassed (see Selinker, Todd Trimble, M. and Trimble, L., 1978: 311-20) which brought about the notional/functional in different situations (e.g. The Focus Series, 1978). This led to a focus on the learner’s communicative needs and this is one of the features of E.S.P. These features consist in the fact that E.S.P. is goal- oriented and requires a necessary, prior analysis of the learners’ needs, before designing a syllabus. Indeed, with the flourishing of commerce, the development of technology, the emergence of English as an international language after the second world war, there was a pressure not only to learn it, but to make of it a useful tool for effective communication, which made it necessary to direct its learning to the different needs of the learners. These characteristics distinguish general purpose English or GPE (see Widdowson, 1983) from ESP whose purpose according to Widdowson (ibid.):

“...refers to the eventual practical use to which the language will be put in achieving occupational and academic aims...having established as precisely as possible what learners need the language for, one then designs a course which converges on the need....to enable them [learners] to cope with certain clearly defined tasks. These tasks constitute the specific purpose which the ESP course

is designed to meet. GPE, on the other hand [which] has to be conceived in educational terms...seeks to provide learners with a general capacity to cope with undefined eventualities in the future.”

Syllabuses therefore, were reflected in E.S.P., in materials concerned with how to express various concepts, and on training learners in the different skills they would need to perform the target tasks. Here, task is used to mean activity as defined by Munby (1978: 11) when he distinguished it from ‘skill’:

“ One may say that the reader needs to be able to ‘understand relations between parts of a text through the grammatical cohesion device of logical connectors’ (a language skill) in order to be able to read and understand the passage (a communicative activity).”

For convenience, I used in this work the word ‘skill’ to refer to the four skills i.e., ‘listening’, ‘writing’, ‘reading’, and ‘speaking’. However, I used interchangeably the words ‘activity’, and ‘sub-skill’ to mean the same thing as the examples given by Graves (1996: 21-22) when she states:

“ However, because becoming proficient in each of these skills entails mastery of a set of sub-skills and processes, many teachers choose to emphasize certain skills or find ways to integrate them. For example, to become proficient in writing, a student must learn how to structure paragraphs, how to use cohesive devices, the rhetorical styles of written English, editing techniques and so on.”

In effect, different skills are integrated while practising certain activities in the classroom. This makes the use of language both meaningful and purposeful, and these two features are intrinsic to an ESP course.

Now that the distinction E.L.T., GPE and E.S.P. is set, and the various developments in both fields are briefly traced back, one may turn to the definition of E.S.T. which states that:

“...E.S.T. is simply an important branch of E.S.P., dealing with scientific content. There are many important content areas in E.S.P. which are not concerned with science – the law and commerce, for example. The second point is that the term E.S.T. is too general to be of great use in the design of E.S.P. materials. The notion of E.S.T. has often led in the past to teaching materials with a scientific bias but which did not serve the needs of the learners. A scientist may need to operate in English in a number of different situations. He

may be required to present a paper at a conference, exchange views informally at social gatherings, read relevant literature on his subject or write a paper.”

(Kennedy and Bolitho, 1984: 3)

E.S.T. (whose inherent discourse features are to be developed in the section related to reading) is therefore included in E.S.P. which deals with a wide range of other branches, like law. Now that the distinction E.S.T. and E.S.P. is made, it may be useful to add that the latter knew further developments which brought it closer to the students' learning situation. Exploring this learning situation's potentials and deficiencies through an exhaustive needs analysis (to be developed in the coming section on needs analysis) became indeed, one of the latest requirements of an ESP course. Also, further specifications were elaborated to meet the learning needs of different learners, and within this line of thought, Robinson (1980: 5) states that:

“Given the great variety of contexts and of ESP courses around the world today, perhaps what we are really involved in as ESP practitioners is not so much reading English for specific purposes but teaching English to specified people.”

Among the specifications mentioned above then, there are those which refer to work or study purposes, such as E.O.P. (English for occupational purposes) and E.A.P. (English for academic purposes). This may be a 'school-subject E.S.P.' (in primary and secondary schools) or a 'discipline-based', i.e. in higher education where learners are either specialising 'in-study' or plan to specialise 'pre-study' (Kennedy and Bolitho, 1984: 4). In the case of E.O.P., the learners' need of English may be either before learning a job 'pre-experience', while learning it 'simultaneous' or after a job has been learned 'post-experience'. In this work, we are mainly concerned with EAP/in-study, and EOP/pre-experience learners as well, since after under-graduate or post-graduate degrees, our learner begin their quest for work.

In the light of this review, we can say that ESP does not imply a special form of language as stated by Hutchinson and Waters (1987: 18):

“The fact that language is used for a specific purpose does not imply that it is a special form of the language, different in kind from other forms. Certainly, there are some features which can be identified as 'typical' of a particular context of use and which, therefore, the learner is more likely to meet in the target situation. But these differences should not be allowed to obscure the far larger

area of common ground that underlies all English use, and indeed, all language use.”

Finally; it may be useful to sum up the major features of ESP development by giving Strevens' (1988) original definition of ESP, and its modified version. Strevens distinguishes between four absolute and two variable characteristics of ESP (in Gatehouse, The Internet TESL Journal, 2001):

“I. Absolute characteristics: ESP consists of English language teaching which is:

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

II. Variable characteristics: ESP may be, but is not necessarily:

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

The modified version of this definition was given at the Japan Conference (1997) on ESP by Dudley-Evans (revised with St. John), and it suggests (in Gatehouse, *ibid.*):

“ I Absolute Characteristics:

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

II Variable Characteristics

- ESP may be related to or designed for specific disciplines;
- ESP may use, in specific teaching situations, a different methodology from that of general English;

- ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation. It could, however, be for learners at secondary school level;
- ESP is generally designed for intermediate or advanced students;
- most ESP courses assume some basic knowledge of the language system, but it can be used with beginners”.

The absolute characteristic ‘ESP is in contrast with General English’ has been omitted in the modified version (ibid.), while more variable characteristics have been added, like specifying the different categories of learners who could benefit from ESP teaching.

Now that ‘E.S.P.’ has been defined and introduced as an approach to course design, which is primarily based on the learners’ needs, it may be useful to examine the different kinds of needs at stake.

1.3- Needs Analysis

If we want to illustrate the position of needs analysis vis-à-vis ESP, we can say that it represents its spinal column.

The label ‘needs analysis’ emerged, according to West (1994: 1), in India in 1920 thanks to Michael West who was concerned with secondary-level learners. This concept reappeared in the Makerere Conference in 1960 in relation to the term English for Special Purposes’ (ESP), and ‘need’ was identified in linguistic terms as a ‘special language or register’ (according to McIntosh and Stevens 1964, in West, 1994: 2). Formal analysis of needs was established by the Council of Europe in the early 1970’s and curriculum development constitutes its underlying theoretical basis as stated in West, who adds (1994: 2) that according to Holec (1985), needs analysis followed three main tendencies:

“ ...improving teaching methods, adapting the teaching to the type of learning public, and training the learner how to learn. Needs analysis has been rooted in the second of these tendencies and more recently, the third.”

Accordingly, we can say that needs analysis developed through various stages. It was first concerned with the requirements of the target situation which should be looked at,

according to Hutchinson and Waters (1987: 55-58) in terms of ‘necessities’ or, “*what the learner has to know in order to function effectively in the target situation*”, and in terms of ‘lacks’ or “*...what the learner knows already, so that you can decide which of the necessities the learner lacks...The target proficiency in other words, needs to be matched against the existing proficiency of the learners*”. Here, the gap between the learner’s present proficiency and the target proficiency represents the learner’s lacks. So far, target needs as ‘necessities’ and ‘lacks’, have been viewed, according to Hutchinson and Waters (ibid.) in an ‘objective sense’ since “*..it is an awareness of need that characterises the ESP situation*” (ibid.,: 56); however, there are also ‘wants’, or the idea learners have about their necessities and lacks. Thus, we come to Berwick’s distinction (1989: 55) between ‘felt’ needs, or the needs according to the learners, and ‘perceived needs’ which are the “*...judgements of the teacher about the educational gaps of his/her students*” and here, we think of ‘subjective’ needs, where cognitive as well as affective factors may influence learning. Along the same line of thought, Brindley (1989: 70) describes objective needs as “*derivable from different kinds of factual information about learners, their use of language in real-life communication situations as well as their current language proficiency and language difficulties*”, while subjective needs are “*derivable from information about affective and cognitive factors such as personality, confidence, attitudes, learners’ wants and expectations with regard to the learning of English and their individual cognitive style and learning strategies.*”

Needs analysis was then primarily concerned with the requirements of the target situation which can either be a job or further studies, and learners should, accordingly, be provided with the appropriate terminology, notions, as well as skills (as defined above). This goal-oriented type of needs analysis (see Munby’s Communicative syllabus design, 1978.) soon broadened its scope to get insight into the process of learning, to discover what the learner needs to know in order to learn, or what are the different strategies to be developed, and be trained in (see Selinker et al. in English for Academic and Technical Purposes: Studies in honor of Louis Trimble, 1981). In this way, needs analysis became process- oriented.

West (1994: 1) states that:

“The scope of needs analysis up to and including Munby (1978) was syllabus specification derived from target situation needs, but the scope has since been broadened to include areas specifically excluded by Munby- practicalities and

constraints, teaching methods and learning strategies, and recently materials selection.”

Here, West describes some of the latest developments (as mentioned in the above section) in the field of needs analysis. However, to place this development in its broader context, of approach to course design, it may be useful to cite some of the different approaches to course design which are, according to Hutchinson and Waters (1987: 65-77), the language-centred, the skills-centred, and the learning-centred approaches.

The first approach (the language-centred) is interested in the end product or the performance (Hutchinson and Waters, 1987: 69) of learners in the target situation. The target needs are viewed in terms of linguistic terms, therefore, only theories of language (Structural, Notional, Functional) are needed by this approach.

The second approach (the skills-centred) however, is concerned not only with performance in the target situation, but also and particularly, with the competence (ibid.) underlying that performance or, what enables the latter to be acquired. Some theoretical views of learning should be involved, like ‘Cognitivism’, which deals with the different processes and strategies that enable the acquisition of the required skills (of the target situation). Target needs therefore, are converted into skills (e.g. reading) and strategies (like skimming, scanning).

For both these two approaches, what is important is the starting point or what will be the content of the target situation, and the ultimate point, what will be the materialisation of that content, either in terms of linguistic items or skills. What is between the identification of the target needs and their realisation seems to be relegated to a secondary position.

What is ‘in-between’, concerns the learning situation, like how this learning is going to be achieved? What is the methodology, the constraints and potential of the learner, the teacher, their motivation, attitudes, the availability and relevancy of materials, their quality (interesting or boring) etc...In a word, all the factors involved in the learning/teaching situation are taken into consideration by the learning-centred approach (Hutchinson and Waters, 1987: 72).

This learning-centred approach, seems to be very exhaustive as it gathers a wide range of information about the learning needs, to give learning the maximum of chances to be acquired. It will therefore, constitute the basis of the needs analysis development in this research work. Consequently, one needs to know: Who the learners are? i.e., their

profile (age, sex, specialism, level of schooling), and how do they learn? (their learning experience, the methodology they were used to, their learning styles...). One also needs to know why do learners need to study English? (whether because it is only compulsory or there are other objectives for this course...), and what are the deficiencies, potential of learners, teachers, the available materials, aids...?. It is as well interesting to be informed of where will the E.S.P. course take place? (in classrooms or the language laboratories? If it is in the latter, what are the constraints on methodology, like the difficulty of performing certain activities in groups). The last question however, will be when does the E.S.P. course take place? (at which year of the learners' study?, the amount of instruction in English, etc...).

Thus, once all the information is gathered about the general background of learners, teachers, the present learning situation, the target situation and all the factors affecting learning, like motivation, one may think of the target situation. In effect, following the learning-centred approach, it will be easier to identify the skills and knowledge needed in the target situation, with a consideration of some theoretical views of language (structural, functional, notional) and some theories of learning (cognitivism, affective factors). Then, and in the light of all the resulted data, a syllabus based on this approach may be thought of, exploiting the potential of the learning situation in the acquisition of the knowledge and skills required by the target situation (see the diagram of the learning-centred approach in Hutchinson and Waters, 1987: 74).

My aim, it should be re-stated, through this research work is not yet to write a syllabus (which would be an interesting follow-up issue to this research work). It rather consists in a suggestion of a rationale for some developmental syllabi based on the learners' needs, or what we defined above as 'objective' needs. Moreover, what should also be taken into consideration are the needs as perceived by both teachers and learners (as mentioned earlier), knowing that there may be conflicts between their views on the objectives of the course, or on some of its aspects (see Robinson, 1991: 8). Indeed, students may incorporate their desires or wants into their personal objectives. Teachers may take them into consideration to increase their motivation (the students'), but will in no way give them priority because to build a course, as seen in the beginning of this part, more parameters should be considered, and inferred from information about a present situation needs analysis (PSA), and a target situation analysis (TSA). About this, further details are provided in chapter 2.

1.4- Reading

Bearing in mind the students' needs, with the worry to best meet those needs, we should not rely only on our intuition and experience as teachers, but we should as well get inspired from the great knowledge theory affords us, to design an appropriate course. This joins Barnett's statement (1989: 1) in the case of reading:

“To teach foreign or second language reading well, we need to know as much as possible about how the reading process works and how to integrate that knowledge effectively into our reading pedagogy.”

Indeed, from reading considered as a process of recognition of letters, words, then sentences to reach comprehension (Goodman, 1967), new developments in research included the use of the background knowledge to understand new information and even predict what is following in the text according to the schema theory. The latter is based on 'bottom-up', i.e., text driven, and 'top-down', i.e., concept driven processing of information, which lead to the interpretation of a text (Carrell et al., 1988). To define this theory, McCarthy (1991: 168-169) points out :

“... the role of background knowledge in the reader's ability to make sense of the text. The theory is that new knowledge can only be processed coherently in relation to existing knowledge frameworks, and that the efficient reader activates the necessary frameworks to assist in decoding the text being read. The frameworks are not only knowledge about the world (e.g. about natural phenomena, about typical sequences of real- life events and behaviour), but also about texts, how texts are typically structured and organised thus enabling us to talk about two kinds of schemata: content and formal, respectively.”

As a matter of fact, this continual reference to background knowledge is experienced with the students, who, when asked to react to texts, give examples from their stored knowledge i.e., knowledge of the world and /or knowledge of the topic in hand. Hence, in addition to the psycholinguistic models of reading, came this growing interest in those decoding processes interacting with more complex processes of meaning or reasoning to reach comprehension (Eskey, Grabe, 1988) or what is known as interactive models of reading. Some researchers went even further in decomposing the complex process of comprehension as consisting of 'perceptual meaning', 'parsing', and 'utilization' (O'Malley et al. 1990). According to them (ibid.,: 34), the first process or 'perceptual meaning', consists in converting some parts of the text retained in the short-

term memory into ‘meaningful representations’, which occurs however in ‘parsing’ through words and phrases whose processed amount depends on ‘the learner’s knowledge of the language, general knowledge of the topic, and how the information is presented’ (ibid.,: 34); while ‘utilization’ involves long-term memory and takes place when relating the text meaning to propositions or schemata (O’Malley et al., 1990: 35). Consequently, the last process allows for the organisation and access to knowledge.

We can say therefore, that the process of reading and comprehension as a whole, is a complex, interacting system drawing from one’s knowledge of the world, of the topic, of the language structure, and of the Lexis, without forgetting other factors such as affective factors. The latter may greatly influence foreign or second language reading as Day and Bamford put it (1998: 22): “*A useful first step for teachers, therefore, can be to understand the sources of student attitudes -positive or negative- toward second language reading*”. With second language, they also include foreign language (See Day and Bamford, 1998: the preface. XIV).

According to them, one of the models of the acquisition and development of second language reading attitude consists of the first language reading attitudes, previous experiences with learning to read other second languages, attitudes toward the second language cultures and people. This model takes also into consideration the second language classroom environment involving the teacher, classmates, approach to and support for L2 reading, together with ongoing experiences in L2 reading (Day and Bamford, 1998: 22-25).

Concerning the reading attitudes related to the course of English in our institution (USTHB), the source which revealed to be worth exploring is the last set of factors of the model (described above), i.e., the second language, or foreign language reading attitudes. Attention was particularly directed to that set of factors, that is the second or foreign language classroom environment. The latter consists mainly of teachers, approach to and support for L2 reading, in addition to ongoing experiences in L2 reading. This has been inferred on the basis of the points which used to frequently arise from discussions, informal interviews with students, teachers, and even the staff, as well as encountered during my own teaching experience in this institution.

First, as far as approach to reading is concerned for instance, **what** is the approach adopted and to be adopted in our institution where most of the teachers are freshly graduated (with a ‘licence’ degree in teaching or in translating). Most of them lack training or previous experience in teaching, are rarely motivated being part-time

teachers, and being recruited each year to replace the leaving ones. **What** about support for reading, with no real library at the centre of teaching languages, where only some materials, limited both in number and variety are available. Moreover, they are used in teaching for the different existing specialities, and levels, by new arrived teachers each year. Then, one may think of the impact of these given data which illustrate the ongoing experience with learning English in general in our institution, and with reading in the course of English in particular. In other words, **what** will be their implication on the way the reading task is dealt with, on the students' attitudes toward reading in English, and on the effectiveness of the reading task? These are some questions to be answered in the suggestions and recommendations section.

We thus have an idea about some of the important stakes to explore and discover through this research work Reading indeed, is the major pillar of any language learning, since we learn most of the language while interacting with it, through reading. Within this line of thought, Day and Bamford suggest 'extensive reading' as an approach. The latter according to them (1998: 7):

"...may be done in and out of the classroom...In the classroom, it requires a period of time, at least 15 minutes or so, to be set aside for sustained silent reading, that is, ...to read individually anything they [learners] wish to."

This type of reading is termed by Krashen et al. (in The Power of Reading, 1993) 'free voluntary reading'; while it is intended, according to the Longman Dictionary of Language Teaching and Applied Linguistics (Richards, Platt and Platt, 1992: 133): *"...to develop good reading habits, to build up knowledge of vocabulary and structure, and to encourage a liking for reading"*.

For such type of reading, students may be evaluated or not (it depends on the teacher). However, in general, there are no immediate tasks at the end, although the teacher, who acts as a counsellor, may guide students who seek help, or even take notes of the students' strengths and weaknesses. Thus, he can decide for the next reading sessions, which aspect of language should be focused on particularly if the weakness is, for instance, common to most students.

All this 'guiding work' on the part of the teacher, together with the large amount of literature being read, may help the student adapt and/or improve his/her reading strategies. These, defined as the *"operations or the steps used by a learner to facilitate the acquisition, storage and retrieval of information"* (O'Malley et Al. 1985: 557), seem

to draw from the same processing strategies used by the learner when reading other languages, as stated by Wallace (in Reading, 1992: 22): “*We draw on similar processing strategies in the reading of all languages, even when the writing systems are very different.*” This seems an interesting issue to explore, but we are not going to elaborate on it because its investigation is not at issue in the present work. The different theories and approaches related to reading being considered, the concern was with extensive reading as an approach, whereby reading becomes a pleasurable task, through which the general vocabulary knowledge and general topical knowledge develop (as seen in the different definitions above). Within this line of thought, Naggy and Herman (1987: 27) state that: “*Incidental learning of words during reading may be the easiest and single most powerful means of promoting large-scale vocabulary growth.*”

Thus, this assumption related to building-up a considerable lexical, structural and even topical amounts of knowledge through reading, is asserted in different research works. We can find it in Hudson’s article “A content comprehension approach to reading English for science and technology, 1991: 83), where it is stated that:

“...these skills, abilities, intentions and strategies represent a web of assets which are summoned to accomplish the reader’s goal. They interact and compensate one another.. It is precisely because of this compensating web of assets, that a focus on comprehension can allow learners to acquire unfamiliar vocabulary and syntactic structures in their effort to understand.”

The approach described here is about an ESP reading project which puts forward the role of content comprehension in the context of reading English for science and technology. Its objective is to develop a reading EST programme, based on the particular needs of the students concerned by that study. In this approach, instruction in grammar and vocabulary was given only when necessary for comprehension of the text. The results of the study showed that the content comprehension approach improved not only reading comprehension but also knowledge of reading grammar and general reading ability as well, as Hudson put it (Ibid.,: 78):

“...importance is placed on the activity through which the content is comprehended rather than on the specific language, rhetorical patterns, or reading skills. The focus is the interaction of the learner’s reading strategies with the tasks the learner performs. EST is seen within the context of the reading process, and authentic EST reading is viewed as involving the use of text to gain information.”

As a matter of fact, this approach represents a view of reading where both product and process orientations are present for one objective which is comprehension of content. This seems to be a breakthrough to what prevailed in the previous theories and approaches related to ESP reading (presented earlier) as in the language centred approach. According to it, materials were built following special grammatical features, such as contrast, comparison, and lexical registers identified through target situation analysis, as in Munby's model for instance (1978). However, a shift occurred in ESP reading theory from the concern with language mastery to developing the reading skills such as scanning, skimming, etc., following the skills centred approach (Widdowson, 1981). Then, came the learning centred approach to encompass the learner's needs, affective factors, and learning style as important parameters in the learning process as a whole, to be taken into account when designing an ESP course. All these ingredients seem to be present in the content comprehension approach described above, with the purpose of content comprehension. For, as Hudson put it himself (1991: 82), reading is purposeful:

“ Reading purpose is a central concern in ESP, and purpose does not reside in the text. It resides in the language learner's relationship to the learning task. [For]...readers engage in reading in order to gain information.”

In the light of what is said here, in ESP reading then, the learner engages in reading with the purpose, which is also a motivating factor, of understanding the content in order to complete a task, such as writing a summary, and through the interaction of different processes, comprehension occurs. Within this context, Hudson (1991: 83) states that:

“ Reading involves the simultaneous application of elements such as context and purpose along with knowledge of grammar, content, vocabulary, discourse conventions, graphemic knowledge, and metacognitive awareness in order to develop an appropriate meaning. [And]...the purposefulness of the activity can lead to vocabulary acquisition...and to grammatical consciousness-raising...while interacting with the text in order to gain information and reduce uncertainty, the learner is motivated to attend to unknown and immediately essential linguistic elements. The learner can learn those structures and vocabulary to the extent necessary to apply them to the present task.”

As EST has been cited earlier (p. 15) in the context of ESP, and it is indeed one of its sub-domains, we may describe some of its features, since our institution, which is the basis of the present research work is of a scientific and technological vocation. EST can

be distinguished from general English not only because it is topically related to science and technology therefore consisting of a technical terminology, but also for the way the text is ‘rhetorically’ organised. The term ‘rhetoric’ is defined as:

“ ...the process a writer uses to produce a desired piece of text. This process is basically one of choosing and organising information for a specific set of purposes and a specific set of readers.”

(.Trimble,1992: 10)

In the case of an EST discourse, Trimble describes it as consisting of two types of paragraphs which are the ‘conceptual paragraph’, and ‘the physical paragraph’. The conceptual paragraph elaborates on all the information chosen by the writer and implying, either implicitly, or explicitly a generalisation defined by Trimble as follows (ibid.,:16):

“....we call the main generalisation ‘core’ or the ‘core generalisation’ when dealing with it in the abstract; [and] we call it the ‘core statement’ of the paragraph when discussing a concrete example.”

The ‘physical paragraph’ however, encompasses the amount of information related to that generalisation “...which is set off from other parts of the discourse by spacing or indentation.” (ibid.,: 15). The EST discourse may be divided, according to Trimble’s EST Process Chart into four rhetorical levels (ibid.,: 10-11) which are:

- Level A: “The objectives of the total discourse” (detailing an experiment presenting new hypothesis, or theory)
- Level B: “The general rhetorical functions that develop the objectives of level A” (like stating purpose, reporting past research, presenting information on experimental procedures)
- Level C: “The specific rhetorical functions that develop the general rhetorical functions of level B” (like description, definition, classification)
- Level D “The rhetorical techniques that provide relationships within and between the rhetorical units of level C” (like orders: time order, space order,...Patterns: order of importance, comparison and contrast...exemplification...).

A distinction is made (Trimble, 1992: 12-13) between a rhetorical function, which is “...a name for what a given unit of the discourse... is trying to do...”, and a rhetorical technique which is rather:

“...a name either for the frame into which writers fit their information or for the way in which the items of information chosen relate to one another or to the main subject of the given unit of discourse. A rhetorical technique can also show how the information purpose of one unit of text (at level C,..) relates to the informational purpose of units preceding or following”.

To carry on with our description of the EST discourse, it is useful to mention the clustering of some grammatical features around some rhetorical functions. We may cite the special relationship of the modal verbs to the rhetoric of instruction (Ibid.,: 119-120), or the passive-stative to the rhetoric of description (Ibid.,: 115-118), knowing that the ‘passive stative’ are “...those constructions that on the surface resemble passives in that they consist of the verb ‘to be’ plus a past participle” as in the example “...When the gear is down and locked...” which describes the state of the grammatical subject, and the passive-stative appears to be an agentless passive; while in the example “...The platform is lowered and raised by the hoist crank.”, “...lowered is in a context that clearly marks it as an activity.” (Ibid.,: 115-116). We may cite as well ‘the non-standard use (and non use)’ of the definite article in the rhetoric of description and of instructions, with the example: ‘The gas turbine engine fires continuously’ (ibid.,: 122), where the definite article is used to mean a generalising statement. This is used instead of the standard usage which requires an indefinite article with a singular noun ‘A gas turbine engine fires continuously’, or the plural of the noun with no preceding article: ‘Gas turbine engines fire continuously’ (ibid.)

In the case of our institution, such grammatical features seem (according to the results of the investigation and my teaching experience, to be elaborated on later) to cause a lot of problems of comprehension for the students, while they manage to understand the terminology present in texts using their topical knowledge or technical dictionaries. However, dictionaries do not always help, as there is still a range of vocabulary that may cause problems to students like that category termed by Trimble (1992: 129) ‘sub-technical’ terms, which are “...those words that have one or more ‘general’ English meanings and which in technical contexts take on extended meanings (technical, or specialized in some fashion)”, like in ‘an arsenic-fast virus’ where ‘fast’ does not mean quick, but resistant, to get the meaning ‘a virus resistant to arsenic’.

There are also ‘noun-compounds’ whereby “...*two or more nouns plus necessary adjectives (and less often verbs and adverbs) that together make up a single concept; that the total expresses a ‘single noun’ idea.*” (Trimble, 1992: 130-131).

These are only examples of some features inherent to EST discourse. However, each discourse has its own set of specific characteristics and the reader should activate all the relevant knowledge in order to interpret a text, as McCarthy puts it (1991: 27):

“Making a sense of a text is an act of interpretation that depends as much on what we as readers bring to a text as what the author puts into it...[also depends on] the reader in actively building the world of the text and how states and events are characteristically manifested in it.”

Within this act of interpretation which depends on ‘what the author puts into the text’ and on what ‘readers bring to a text’ (see the quotation above), there is ‘coherence’ which is:

“...the feeling that a text hangs together, that it makes sense, and is not just a jumble of sentences...The sentences ‘Clare loves potatoes. She was born in Ireland.’ are cohesive (Clare/she), but are only coherent if one already shares the stereotype ethnic association between being Irish and loving potatoes’

(McCarthy, 1991: 26)

As we cannot think of coherence without cohesion, we may show the relationship between them in McCarthy’s statement (Ibid.): “...*Cohesion is only a guide to coherence*” and “...*cohesion is only part of coherence in reading and writing, and indeed in spoken language too, for the same processes operate there.*”

To come back to this act of interpretation (while interacting with the text) which involves different knowledge frameworks (see the definition of schema theory McCarthy, 1991: 168-169), like knowledge about texts, one may think of what Trimble (1992: 25) suggests in the case of teaching reading for EST students, that is parallelism, defined as:

“...a process that uses a unit of discourse (in our case written discourse) as a vehicle for carrying the rhetorical, grammatical, and lexical features of EST discourse through the medium of special subject matter. This subject matter is ‘special’ in that it belongs to no field of study at a level that would exclude any

member of a class from understanding it. Thus we can say that the subject matter we work with is always close to a basic level of comprehensibility. Further, this unit of discourse should interest the students without being too dense in content or structure for both their language levels and their subject matter levels. Finally, the unit should not be so advanced or so esoteric that it gives any student advantage over any other.”

In the case of our institution (USTHB), parallelism would be appropriate for undergraduate students, in the first years of their course, before beginning their speciality, when they are still sharing common core courses, as described by Trimble (Ibid.,: 25):

“Whether they consist of a group of would be engineers, or natural or physical scientists, or a thorough mix, they do share a certain background in common: as students of science and technology, they share some knowledge of mathematics and of basic scientific concepts.”

However, when undergraduates begin their speciality, what would be appropriate is what Trimble calls ‘individualization’ (1992: 23), which:

“ ...does not include the meaning that many people have for ‘individualizing’; the one –to- one procedure, the tutorial. Rather, it refers to a series of specific assignments related in such a way that they all deal with the same area of a subject but are individual within that area and are so designed that they relate to the individual needs of each student.”

This ‘individualisation’ however, is particularly appropriate for postgraduate mixed science classes, to take in turns with the common-core course of English.

As these different processes (individualisation, and parallelism) imply different types of texts, we may cite the four categories of materials into which written EST discourse can be divided according to Trimble (1992) which are: 1. ‘genuine materials’, 2. ‘adapted materials’, 3. ‘synthesised materials’, 4. ‘created materials’.

First, ‘genuine materials’ which “...are those taken directly from a printed source and presented without alteration” (ibid.,: 27) are used for learners who, according to Trimble should constitute a homogenous group, have ‘a solid background in English’ which in addition to their basic scientific and technical knowledge, allow us (Ibid.,: 27) to “...choose texts over a wide range of subject matter difficulty”. We have however, no control over the structure, or the lexis, or even on the rhetorical features which may pose problems, particularly for non-native learners, like when uncountables are

pluralised as in the word ‘glasses’ instead of glass – from which all things of glass are made - to mean kinds of glass (ibid.,: 30). According to Trimble this is not just a difficulty of lexis, but “*difficulty plus apparent ‘rule violation’*” (ibid.,: 30) which is likely to cause problems for non-native learners, particularly when they are not yet experienced in reading scientific and technical literature. Therefore, it may be useful, in this case, to avoid such difficulties and have control upon this kind of rhetorical features. For this, we may modify ‘genuine’ materials to obtain what Trimble (ibid.,: 33) terms ‘adapted’ materials, which “*...allow us to stress – and sometimes even create the features that we want to work with...we can avoid many problems first, by selecting material as close to what we actually want and need as possible and second, by making minimal changes.*” However, if more control is needed over grammatical, rhetorical, and lexical features, ‘synthesised’ materials may be opted for, as suggested by Trimble (Ibid.,: 38):

“By synthesising we mean the process of taking ‘genuine’ materials from two or more sources, deleting the unwanted items and fusing the remaining information into a continuous text...much more control can be achieved by clever paraphrasing than by relying on too much original language. In other words, we can leave the original where appropriate and, when we wish, adapt for specific points of rhetoric, structure or lexis.”

As for the fourth category of materials, it represents the ‘created’ materials which resemble synthesised materials, except that (Trimble, 1992: 38)

“...our sources are used purely for reference and all the wording is our own. This method obviously gives us almost complete control in building our units of discourse as we want them, in stressing those grammatical elements we wish to have practised, and in providing the lexis that is most useful for any given group.”

In the light of what has been said about the different types of materials, we are faced with the dilemma of which kind of materials to opt for, knowing that a controversy has already settled (see Day and Bamford, 1998: 54) with the communicative language teaching movement (in the late 1970’s) about the superiority of ‘genuine’ or authentic materials “*...those written by and for native speakers and not specifically for language teaching*” over the “*...materials especially written or simplified for language learners.*” (ibid.,: 54). Simplified here, is a broad meaning which encompasses Trimble’s ‘adapting’, ‘synthesising’, or ‘creating’. There are still advocates of this belief Nuttal

(1996: 177) states that authentic materials “...exhibit the characteristics of true discourse: having something to say, being coherent and clearly organized”, although she adds that “...linguistically difficult texts are unlikely to be suitable for developing most reading skills” and “Authentic material is the ideal, but if you cannot find enough at the right level you will have to use simplified or specially written materials to begin with” (ibid.,: 178) This ‘specially’ written material in Nuttal’s quotation is the compromise found by Day and Bamford to reconcile authenticity and simplification, that is, ‘specially’ written materials constitute also an authentic, simple version. Within this line of thought, they state that: “ Teachers must broaden their understanding of authenticity to include materials written and adapted for language learners. They must also appreciate the essential role played in learning to read and becoming a reader by material that individual students find easy, interesting, and relevant” (Day and Bamford 1998 : 165-166). They also explain that, either written for ‘entertainment’ or for ‘learning to read’, such literature, they term ‘learner language literature’ should be (ibid.,: 64) “...not a lesser version of something else, but a fully realised, complete –in-itself act of communication between author and audience.” By audience, they refer to foreign or second language learners who:

“...need a variety of excellent material written especially for them. Because of its communicative intent, such material would be authentic and appropriately simple in language and concept. Such material might properly be called language learner literature.”

(Ibid., p. 61)

It seems therefore necessary to use in the beginning, reading materials which cope appropriately with the learners’ linguistic and ‘conceptual’ (see Kennedy and Bolitho, 1989) levels, either by using a form of simplification, or rather writing especially for those learners. For this, we should bear in mind some criteria as those given by Trimble (1992: 40) : “ ...the basic criteria for determining whether to use ‘genuine’ materials or to adapt or synthesise or create them are 1. The language and subject-matter levels of a given group and 2. The features to be stressed in a given teaching session.” Indeed, students are generally discouraged when they deal with difficult scientific and technical literature particularly when they have to make a frequent use of dictionaries (according to my teaching experience, and the feedback obtained from the investigation carried out in our institution,) , as put by Day and Bamford (1998: 93):

“Part of fluent and effective reading involves the reader ignoring unknown words and phrases or if understanding them is essential, guessing their approximate meaning. Fluent reading is hindered by a reader stopping to use a dictionary.”

It may be therefore more appropriate as I have already put it above, to use, in the case of our institution, simplified materials in the first years of the learners’ course of English until their levels in language and subject matter (or instruction in their speciality) improve. Then, authentic materials may gradually be introduced. At the post graduate level for instance, only authentic literature should be used, even let students read for their own research, and when the teacher identifies some deficiencies common to all the learners she needs to use some adapted texts directed to those particular weaknesses. Within this line of thought Trimble said that (1992: 40): *“The more advanced the class (advanced both in English and subject matter), the more useful are ‘genuine materials.’* As a conclusion to this survey of the different approaches, theories and processes related to reading, as well as the discussion of the different aspects concerning the reading materials, light should be shed on one of the points of focus of the present work. It is the ultimate goal of the reading task whereby students should not only acquire the skills necessary to cope efficiently with academic reading, but also become independent readers, as Day and Bamford put it (1998: 164): *“There should also be the goals of students becoming fluent, independent and confident readers.”*

Chapter 2: The Research Methodology

2.1- The rationale of the research

2.2-The validation of the research

. 2.2.1-The rationale of the proficiency test

2.2.2-The test results

2.3-Data collection

2.3.1-Sampling

2.3.2-Research tools

2.3.2.1. Interviews

2.3.2.2. Questionnaires

2.4-The validity and reliability of the eliciting tools

2- The research methodology:

As the first step of a research methodology consists in stating the research question or hypothesis (Seliger and Shohamy, 1989: 128), light should be shed on the research problem.

2.1- The rationale of the research:

The research questions

As stated in the introduction, the module of English is compulsory for the different disciplines in our institution. However, the general level of learners is low according to their teachers (feedback of interviews as well as discussions), and to the results obtained in their different exams in this module. Students indeed, are unable to read easily, and lack motivation, according to my teaching experience in this institution, with different disciplines as well as levels.

The basic concern emerges from the following question: why do students not seem to progress in their learning of English? Why does their general command of English remain low after so many years of English instruction? What can be done to improve the teaching/learning situation?

This concern opens the way for several research questions, such as: Why do our learners still meet difficulties in reading comprehension of subject-related documents, although they regularly practise this skill in class?

Why do they still have problems with the basics of the English structure (like tenses, articles, modals), and are unable to write adequately, although 'grammar' is the most practised component during the course?

Why are most of their questions, requests for clarification during the course of English, asked in French or Arabic after so many years of English study?

Why is the rate of their absenteeism so high, at all levels during the course of English?

To obtain such information it seems to me necessary, as a teacher in this institution, to try and get insight into the teaching/learning situation in general, to find out about the different conditions in which the course of English is run, and examine their effect on learning. This will help us to see how (in)-effective the teaching/ learning of English in this institution is since there seems to be no improvement in the students' learning. The

aim does not set out to prove a cause-effect relationship, but rather to attempt at identifying the different parameters of the teaching/ learning situation, and locating the various areas which are likely to lie behind the students' difficulties in learning English.

In addition to my own teaching experience in this institution, an investigation using research tools such as interviews and questionnaires, is necessary for an exhaustive data collection about the teaching/learning situation.

Then, according to the results obtained from the investigation some proposals will be made as an attempt to improve the situation. They will concern the general management of the course of English from its introduction in the third year (in general) of graduation, to the fourth and fifth years, up to the first year of post-graduate studies, which is the last year of instruction in English, before students begin their research. The concern of the present work is to help students build up abilities in order to improve their general level in English, and prepare them to be able to cope with the requirements of their target needs.

My aim through this research work therefore is to come up with some suggestions for a rationale for developmental common-core syllabi. In other words, the objective of this rationale is to follow the evolution of the learners' building abilities. Thus, the focus will be on grasping the English basic structures (to be developed in the suggestions & recommendations section) in the second/third years, using 'parallelism' (chapter 1). Then, there will be a shift of focus to the practice of problem solving activities (ibid.) in the fourth and fifth years of under-graduation, as an initiation to the use of adapted, subject-related English, working on semi-authentic materials. The culminating point within the continuum will be reached at the first year post-graduate level, where the learner will be able to use English for his specific purposes, that is in this case, to read authentic materials, or English written documents in his subject, particularly for his research.

Finally, we may summarise the common, underlying objectives of the suggested educational management of the course of English at the USTHB, as follows:

- Those related to the 2nd/3rd years' syllabi which are intended to meet the learners' academic needs. Their aim consists mainly in enabling them to reach the basic level of English necessary to start training in reading comprehension of general science texts.
- While the objectives of the 4th/5th years' syllabi are directed towards training students in reading comprehension of adapted, specialised scientific and technical

texts, in addition to developing their writing skills. The latter may be needed for occupational purposes, but also for academic purposes, in case they carry out their studies up to the post-graduate level.

- As for the objectives related to the post-graduates' syllabus, they aim at meeting both academic and occupational needs. We may respectively mention reading individually specific, subject-related documents for their research and synthesising; then, presenting papers, and attending conferences.

Obviously, these suggestions constitute a global rationale for some syllabi that we hope will be in later phases, reviewed, refined, and adapted appropriately to meet the requirements of each particular discipline.

Thus, the ultimate goal is to enable our learners, to read and understand subject-related documents, as well as to use English in writing abstracts, reports, or in publicising scientific/technical articles, without waiting for any help. In this way, they could become autonomous, and independent users of English.

An investigation is therefore necessary, as it would allow the identification of the different needs, and the subsequent specification of objectives in terms of various appropriate types of content. The first step however, before carrying out this investigation is to validate the research questions. This will be the concern of the following section.

2.2- The validation of the research questions

The most convenient way to validate the research questions is to administer a proficiency test, which is likely to bring out tangible results about the general level in English, of our learners.

2.2.1- The rationale of the proficiency test

“...most proficiency tests concentrate on assessing candidates' ability to use English for a general purpose. The candidates' general command of English may not form the chief focus for a proficiency test.”

(Heaton, 1990: 17)

The proficiency test designed for this research work aims at assessing the students' ability in reading comprehension, and measuring their mastery of some aspects of the

English language, which most of the students at the USTHB are supposed to have acquired by the end of their course of English.

As for the format (how items are presented), the test includes a general text and four questions. The first question, a multiple choice exercise, is related to the comprehension of the text and includes six items, each item with four choices.

The second question however, includes six items about some tenses, and the student has to choose among two suggested answers, the right articles.

Finally, the last question is composed of twelve items, each one requiring the use of either a comparative or a superlative, that is only one possible answer.

And we know that when only one possible answer is required each time, it is easier to correct and mark than a composition for instance, as stated by Heaton (1990: 30):

“An objective item can be marked very quickly and completely reliably. Because an objective item has only one correct answer or a limited number of correct answers, this kind of test can be marked by a machine or by an inexperienced person.”

This implies that this test is objective, which is very important for its reliability.

As for the conditions in which the test was administered, teachers were very cooperative to accept the conditions of its administration. Indeed, teachers were asked to devote one hour of their sessions, far from exams, and administer the test to ten students chosen at random, during the last sessions of the academic year. No explanation was to be given to the students since the test was legible, and the questions clearly put. The students' papers were given to me right at the end of the test.

2.2.2- The test results

The students involved in the test represented different institutes (10 students from each institute). They were in their fourth year of graduation, except for Civil Engineering (Ce), and Mechanical engineering (Me) where the English module is introduced only at the fifth year, which is the last year of their studies, as well as Industrial Chemistry (Ic) or Chemical Engineering where this course starts only in the third year.

The results showed that out of one hundred students, only thirty two obtained the pass mark out of twenty. Only Computer Science (Cp) students (more than the average

number) obtained relatively, good marks in the test, which may be attributed to the fact that the module of English has been introduced in their curricula in the second year, and has since been run in a regular form for years. Taking into consideration this last information, we may say that even the results obtained by the computer scientists are less than what was expected. The other disciplines represented in the test are: Mathematics (Mth), Physics (Ph), Earth Sciences (Eth), Natural Sciences (Nat.Sc.), Electronics (Eln), and Chemistry (Ch).

In view of these results (only 32 out of 100 students have obtained the pass mark) illustrated in figures 1 and 2, it may be confirmed that students have deficiencies in the basics of the English structure, which reinforces therefore, the research questions.

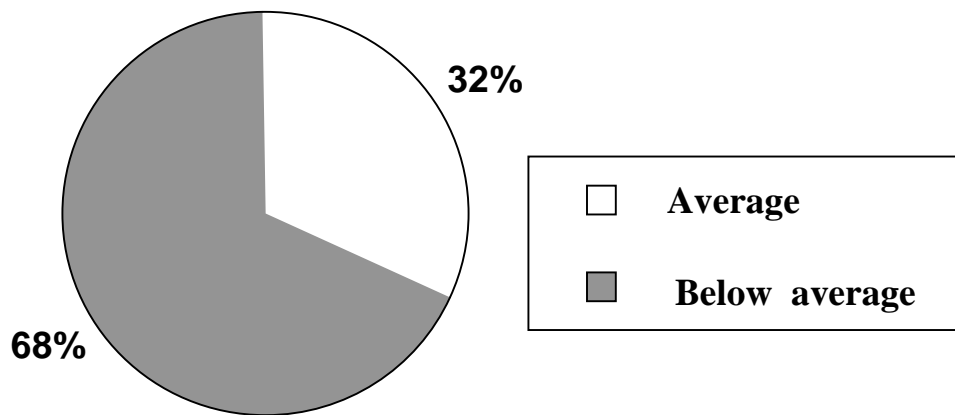


Figure 1: The proportion of students who obtained scores ≥ 10 in the test.

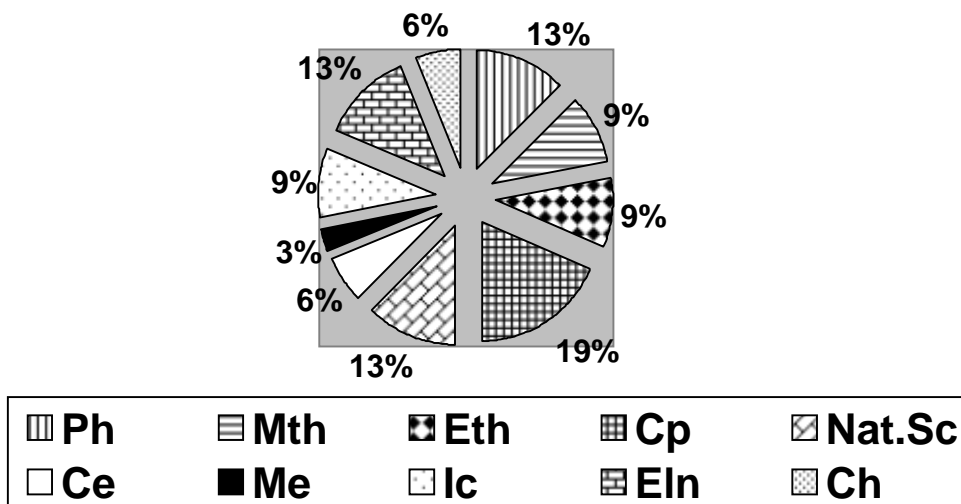


Figure 2: The distribution of the scores ≥ 10 for the different institutes.

2.3- Needs Analysis : Data collection

To analyse the different needs related to the course of English in this institution, data should be gathered from various sources of information and should concern the different aspects related to the course of English at the USTHB. These aspects constitute the teaching/learning conditions. The potential informants or sources of information are dealt with in the following section.

2.3.1- Sampling

For this research work, sampling will be made at random (see Nunan, 1992: 142) in the sense that the inquiry will concern groups of students from different institutes, at different levels of instruction (under-graduation/post-graduation) provided they have an English module on their curricula. The purpose of this selection is to have a sampling which should be as representative as possible. Even former post-graduates, who have finished or are in the process of finishing their studies (more precisely their research work) will be concerned, which gives a total of one hundred sixty three (163) students. Sampling will also include language teachers from this institution with a “licence” degree (B.A), either in Teaching or Translating as well as subject-matter teachers (those who teach science or technical courses) but who teach English as well. This brings the total number to thirty (30) teachers.

Some members of the administrative staff of the university, especially those who are in direct relation with the organisation of courses, will also be concerned.

This is then the population which will be involved in the survey. As for the survey instruments to elicit the required data, they are discussed in the next section.

2.3.2- Research tools

Two research tools will be used to collect data, namely interviews and questionnaires.

2.3.2.1. Interviews

Interviews are rather time consuming. So, owing to the time constraints this research work is submitted to, informal interviews will only involve some members among the university's administrative staff, language as well as subject-matter teachers, and some students from different institutes and levels. The information resulting from these different interviews will help us to check, complete, and even clarify ambiguous and incomplete information.

The informal interviews are based on questions asked in the questionnaires prepared for the students and the teachers (to be presented in point 2.3.2.2). Concerning teachers, they are sometimes interviewed in groups, in informal discussions at the end of meetings or separately with different teachers each time. Some questions however, like the motivation of teachers in their work, and the different problems they meet, do not figure in the teachers' questionnaire.

As for the students, they are informally interviewed at the end of their courses. Most of the questions are inspired from their questionnaire while some do not, like their opinion about the course of English they have, the way they prefer it to be taught etc...

The questions addressed to the university's administrative staff are about the existence or not of any official programmes or/and objectives for the course of English at the USTHB. They also include a question on whether any official projects are intended for the course. Such questions will shed light on the present learning situation in this institution, and enrich the last point of the areas of investigation, about suggestions and recommendations. The latter will constitute the basis of chapter four (4).

Now that the different points to be investigated by the interview are known, the turn is to the information to be elicited through questionnaires.

2.3.2.2. Questionnaires

The questionnaires include structured questions, i.e., requiring limited and precise answers like 'list', 'category' and 'ranking' (see Bell, 1987). It may be reminded here, that in 'list' questions, the respondent has to choose among a set of items, one or more answers, like in question 16 from the teachers' questionnaire (see appendix B). As for

'category' questions, a list of categories is offered, and the respondent is expected to select only one like in question 3 from the teachers' questionnaire (ibid.) about age categories. Whereas with 'ranking' questions, the respondent is expected to arrange a set of items according to their priority, as in question 14 from the teachers' questionnaire (ibid.). In the case of just organising data, 'nominal scales' are used for questions as those requiring a 'yes' or 'no' answers like question 13 (from the teachers' questionnaire); number 1 is ascribed when there is an answer, and 0 when there is none. For ranking, ordinal scales are used, as in question 14 where number 1 represents the highest priority.

However, the questionnaires also include a limited number of open questions, in order to allow the respondents to answer freely and truthfully when making suggestions about the course of English, like question 30 (from the teachers' questionnaire).

Summary sheets were prepared with the different codes assigned to the informants to guaranty anonymity, for instance Ph4 ys, stands for physics fourth year .

As for the areas of investigation, since the approach adopted in this work is the learning-centred approach to course design (already introduced in chapter I), the aspects which should be taken into account are not only the learners' needs and the target needs. The areas of investigation should also cover the present situation needs (background, profile), the learning needs which may be inferred from the learners' difficulties or lacks and the teachers' methodology, teaching experience as well as the materials in use. All these data, together with the potential and limitations of the learners, the teachers and conditions, will help in identifying the learners' objective needs or necessities. It will also be an opportunity to obtain information about their subjective needs, as well as their attitudes, and motivation. These points will therefore constitute the rationale of the following questionnaires:

2.3.2.2.1- The Teachers' Questionnaire:

First, it should be reminded that both language teachers and subject-matter teachers (i.e., those who teach a scientific/technical discipline as well as English) are concerned by the same questionnaire. Questions 4,5, and 9 are designed to distinguish between the two categories of teachers. Therefore, it was not necessary to design two different questionnaires. It should be noted however, that at the university level, both language and subject-matter teachers are given the same status, although the latter

have no previous training in language teaching. Thus, explanations about the questionnaires were given to them when necessary.

As for the areas of investigation covered by the questionnaire, they are:

- The present learning situation which aims at getting information about:
 - The teachers' background: like the profile (questions 1,2, 3), qualifications (questions 4,5, and 6); while questions 7 and 8 specify whether teachers use this language for other activities, to have an idea on their command of it. However, questions 9 and 10 are about their teaching experience.
- The learning needs will be inferred from the information about:
 - The materials used by teachers (questions 11, 12, and 13) and methodology of teaching (questions 14, 15, 16, and 17).
- The target needs as perceived by teachers require information about:
 - The register of English adopted (question 18).
 - The perceived needs, in terms of skills (question19) and the different activities related to the course of English (question 20).
 - Information, about objectives and suggestions concerning the course of English (questions 21,22, 23, 24, 25, 26, 27, 28, 29, and 30).

2.3.2.2.2- The Students' Questionnaire:

Students from different institutes, at the under-graduate and post-graduate levels, as well as former post-graduates were given questionnaires, to ensure a general representation of learners at the USTHB. This questionnaire is designed in such a way as to yield information to be matched with that elicited by the teachers' questionnaire. Thus, this questionnaire covers such areas of investigation as:

- The present learning situation which may be depicted from the information yielded about:
 - The students' background, like their profile (questions 1 to 4), and the amount of instruction in English (question5).
- The learning needs and lacks will mainly be based on information about:
 - The needs or lacks as perceived by learners (questions 6 and 7).
 - The learning experience and the methodology these learners are used to (questions 8, 9, and 10), as well as a question to be a hint to their motivation and attitude towards the course of English (question11).

- Some of the learners' reading strategies may be inferred from question 12.
- The target needs as perceived by the learners will cover:
 - The preferred register of English according to students (question 13).
 - Their perceived needs in terms of skills (question 14), and sub-skills (question 15).
 - The information concerning suggestions about the course of English (questions 16, 17, and 18).

Now that the questionnaires' areas of investigation have been detailed, we shall turn to discussing the validity and reliability of these questionnaires. This is the concern of the next section.

2.4- The validity and reliability of the research tools

As validity implies relevancy and appropriacy, the latter will be revealed through piloting the questionnaires. In other words, after trying out the questionnaires on a limited number of informants, the given answers will show whether the questions, especially the wording, are relevant and really investigate what is meant to be investigated. Thus, piloting serves to reformulate certain inappropriate questions, and to make the questionnaires more valid. In the case of the present research work, piloting was carried out four months before the distribution of the final questionnaires. This allowed us to cross out some questions from both questionnaires which revealed to be long, and to clarify some ambiguous ones. As a matter of fact, and for the sake of clarity, some questions have been either sub-divided into several items, like question 7 from the students' questionnaire (appendix C), changed in their format, or improved at the level of wording. For instance in question 10 (from the students' questionnaire) the linguistic terminology related to discourse cohesion and coherence was substituted by different examples of activities referring to them, because the students ignore such a terminology. Question 9 from the teachers' questionnaire was however added, in order to enrich the area of investigation related to the informants' background, and also to distinguish between subject-matter and language teachers. As for question 13, it was added to the teachers' questionnaire to distinguish between general science documents, and highly technical documents, a misunderstanding that happened to one language teacher when he was answering question 12 .

The use of a variety of sources of information, like teachers, students, the administrative staff and one's own intuition as a researcher and teacher in this institution (triangulation) increases the objectivity of the elicitation tools as advocated by Seliger and Shohamy (1989: 123) who state that: "*Subjectivity may however be controlled through triangulation*". And objectivity as mentioned earlier in this chapter, increases the degree of reliability. The use of different elicitation techniques (questionnaires, interviews, test) is also another way to produce consistent and more accurate data. The latter may also be inferred by comparing and matching the different results of the students and teachers (students/students, and students/teachers) and precisely for this purpose, the same questions are sometimes asked to both teachers and students like questions 10 (from the students' questionnaire), and question 16 (from the teachers' questionnaire). At other times, some alternatives are given to check the accuracy of an answer, or elicit more information in order to complete a previous question, like question 13 from the teachers' questionnaire vis -à- vis question 12 (ibid.) It is therefore, another measure to guarantee reliability and validity.

Chapter 3: Data Analysis of the students' and teachers' questionnaires

- 3.1- The presentation of the results of the students' questionnaires
- 3.2- The analysis of the under-graduates' questionnaires
- 3.3- The analysis of the post-graduates' questionnaires
- 3.4- The analysis of the former post-graduates' questionnaires
- 3.5- The presentation of the teachers' questionnaires
- 3.6 -Data Analysis of the teachers' questionnaires

3.1- The presentation of the results of the students' questionnaires

As I have already mentioned it previously, summary sheets were prepared. They bear codes representing numbers from 1 to 10, which correspond to the number of students (to whom questionnaires were distributed) from each discipline, the initials of the student's speciality, and the year of study which is not the same for all the informants. As a matter of fact, the introduction of the module of English does not always occur at the same year for the different institutes, and is sometimes different even within the same institute, from one option to another. Therefore, questionnaires have been distributed to fourth years, since English is generally taught at the third, or fourth year for most disciplines at the USTHB, while they have been given to fifth year students in some other disciplines like Civil Engineering and Mechanical Engineering, because English is studied only at the fifth year. Concerning Industrial Chemistry or Chemical Engineering, the course of English was interrupted for the fourth years, one year before the distribution of my questionnaires. Therefore, questionnaires were distributed to third years only, since the module of English is neither taught before, nor after (at the fifth year). The distribution took place by the end of their course of English, far from exams. The codes assigned to the different institutes however, are as follows: IC3Ys stands for Chemical Engineering third years, Ph4Ys for Physics fourth years, BIO for Biology or Natural Sciences, Mth for Mathematics, Eln for Electronics, Ch for Chemistry, CP for Computer Sciences, Eth for Earth Sciences, CE for Civil Engineering, and ME for Mechanical Engineering.

As for the analysis of the data yielded by the different questionnaires, list questions will be analysed as nominal data, ranking questions as ordinal data, whereas category questions like age will be calculated following the formula of the mean.

Open questions however, will be summarised, discussed, and taken into consideration for suggestions as well as recommendations (in chapter 4), like all the information gathered from the informal interviews (of teachers, students, and the administrative staff).

For the analysis of nominal data, the sum of 'yes', 'no' questions, figures in tables and also in compound bar charts for a better illustration (see the result of question 12 in the teachers' questionnaire for instance). Whenever there is an answer, whether positive or negative, it is counted as one, while in the absence of an answer, it is counted as '0'.

As for the analysis of ordinal data, the sum of the numbers given to each response determines the frequency of each value, and this is represented in tables as well as in compound bar charts in order to facilitate the visualisation and comparison of results (see question 14 from the students questionnaire for instance).

Whenever possible, the results of two or more questions are grouped in the same table and chart for the sake of practicality, to limit the number of tables. For instance, to show clearly the profile of the students, their answers have been grouped in one table for questions from 1 to 5. For the other questions, answers have been first summed for each institute, and for each question, then presented with the global answers of the other institutes, to reduce the tables' length.

3.2- Data Analysis of the under-graduates' questionnaires

Questions 1 to 5: These questions concern the profile of students. Questions 1 (institute) and 2 (year of study) are included in the code assigned to students.

Questions 1/2	Question 3		Question 4				Question 5	
	F	M	1	2	3	4	1	2
Total	55	45	28	58	12	02	See details in appendix A	

Table 1: Answers for questions '1', '2', '3', '4', and '5' .

There are 55 females, and 45 males (question 3).

The average age varies between 21,8 and 22,4 for the fourth years, and 23,9 for the fifth years (question 4).

All of them studied three years at the "lycée", or the secondary school (those who studied another language than English were not given questionnaires), while at university 60% of them have studied English for one year, 30% for two years, and 1% only for three years (question 5) .

Question 6 : It is about difficulty of the different skills as perceived by the students.

Institute	Oral expression	Written expression	Reading - comprehension	Listening-comprehension
Total	87	73	67	82

Table 2: The skills in which under-graduates say they meet difficulties.

The skill which seems to cause a great deal of difficulty to most students at the USTHB is oral expression according to 87% of students. Then, comes listening comprehension with 82%, followed by written expression with 73%, and finally, by reading comprehension with 67%.

The following chart illustrates the results of question 6.

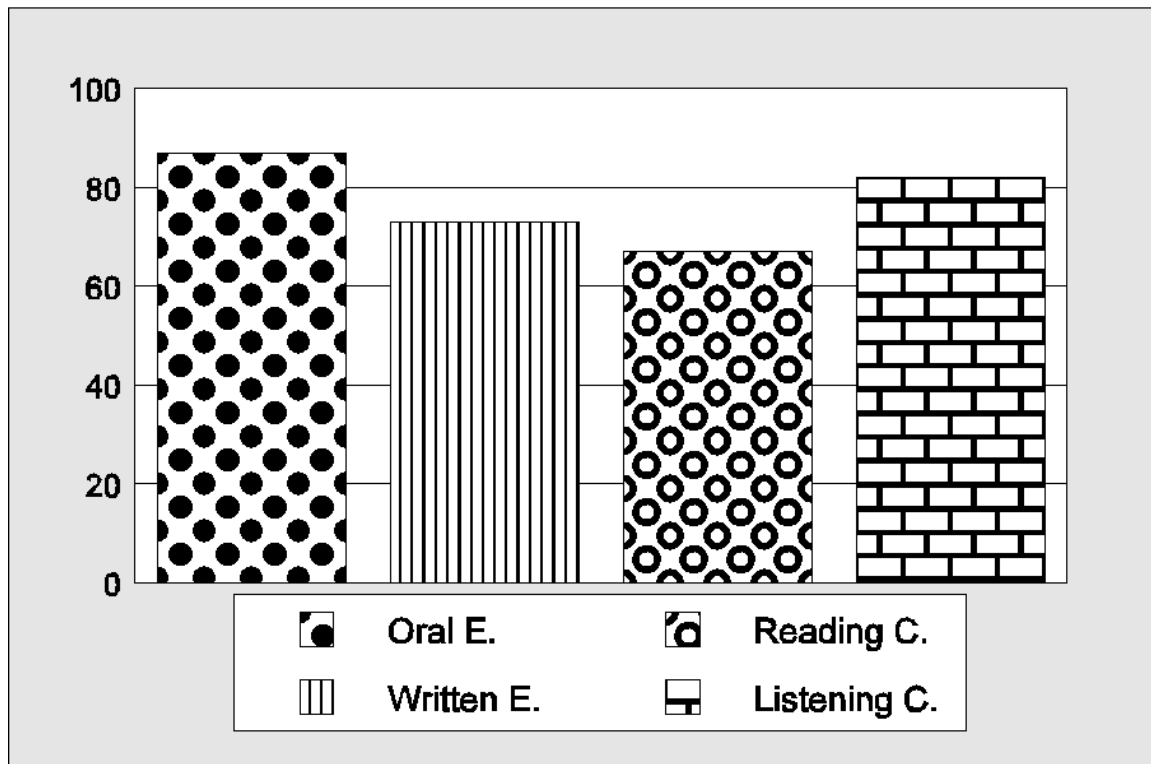


Figure 3: The skills in which under-graduates meet difficulties.

Question 7: It deals with some language components (some aspects of vocabulary and grammar to facilitate the task for students) which cause problems of comprehension for

students, when reading. (results are presented in, tables 3a, 3b, respectively). The table however, concerns some aspects of vocabulary, like single words and compounds.

	Single Words	compounds
Total	67	73

Table 3a: The aspects of language concerning vocabulary, which seem to cause difficulty for the under-graduates in reading comprehension.

According to this table, both aspects of vocabulary (single words, and compounds) cause difficulty to students when reading. Indeed, 67% of students meet problems, when reading, with single words. However, compounds seem to cause more difficulties for students, since 73% have agreed on this fact.

The following table concerns grammar components which seem to cause difficulties to students, in reading comprehension.

	connectives	passive voice	quantity expressions	comparatives	word formation
Total	63	61	48	57	70

Table 3b: Some grammar components which seem to cause difficulty for the under-graduates in reading comprehension.

Here, the question focuses on the total of answers concerning some grammar aspects which cause difficulty to students when reading.

According to this table, word-formation causes a great deal of difficulty to 70% of students, then connectives with 63%, followed by the passive voice with 61%. Comparatives come in the next position with 57%, and quantity expressions with 48%. Concerning the open question related to this part (c), 56% of students also meet difficulties in the use of tenses.

The following chart presents the results of question 7.

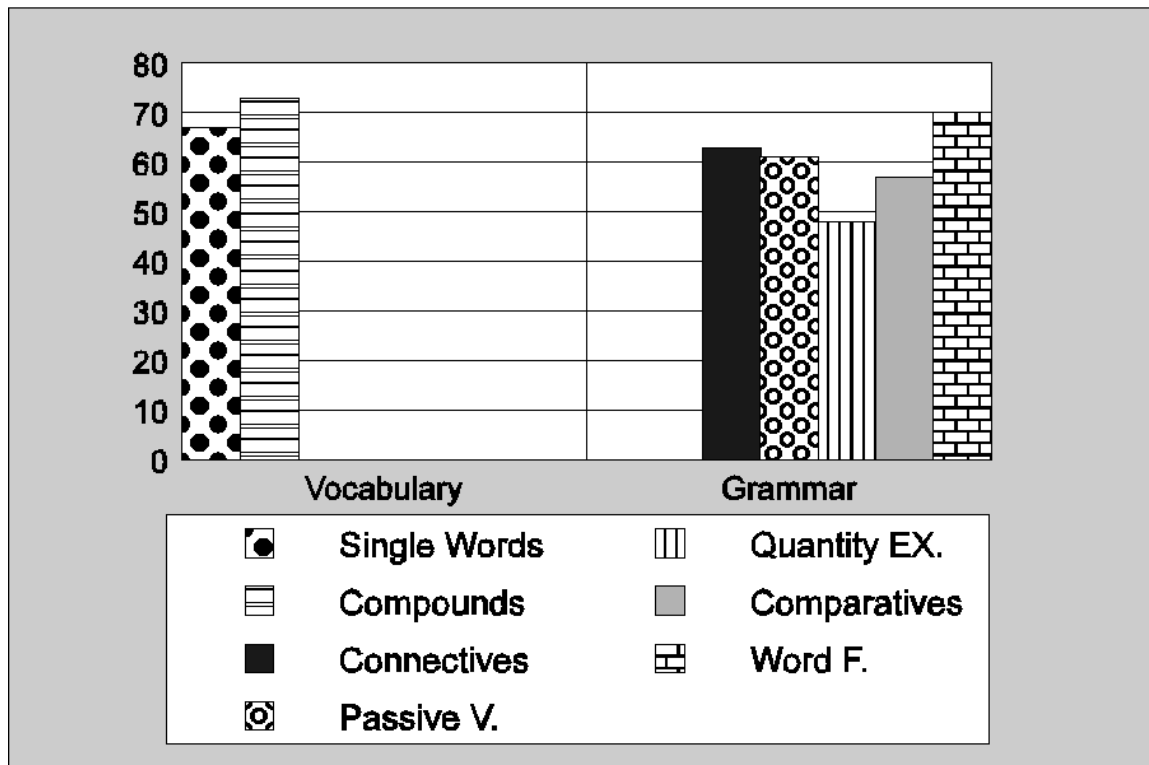


Figure 4: Aspects of language which cause difficulties to under-graduates.

Questions 8 and 9: Are about the register of English (question 8) students learn at the USTHB during the course of English (the year these questionnaires were handed out), i.e. general (GE), general science (GS), or technical English (TE). Students should specify (question 9) whether grammar (A) is studied or not, and they should also mention whether the other skills like oral expression (B), listening (C), writing (D), reading (E) are practised during their course of English

Institute	GE	GSE	TE	A	B	C	D	E
Total	37	35	21	55	28	13	28	44

Table 4: The register of English which is studied, and the different skills that are covered

According to this table based on the students' answers, the type of English which is generally studied at the USTHB is general interest English, as asserted by 37% of

students. Among the other students who answered the questionnaires, 35% study general science English, and 21% technical English.

Sometimes, the register of studied English differs from one group to the other, within the same institute, when more than one teacher take in charge the course of English. This may explain the different discrepancies in the answers.

However, concerning the study of the different skills, one can state that the most studied skill is grammar according to 55% of students, followed by reading with 44%, then by both oral expression and writing with 28%, and finally, listening with 13% out of 100 students.

The following chart illustrates the results of questions 8 and 9.

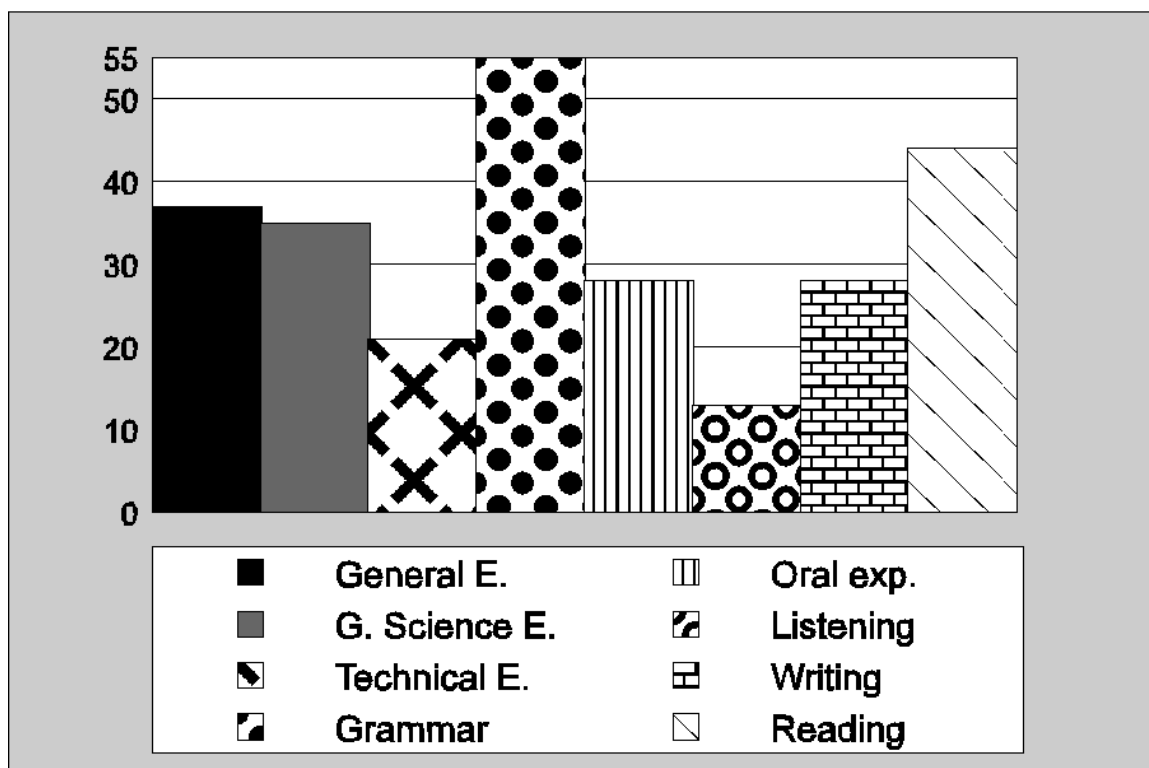


Figure 5: The register of English and the skills which are studied.

Question 10: is about the sub-skills which are practised during the course of English, according to the students. These sub-skills are: Reading and explaining the vocabulary in texts (a), reading and studying relations between the different parts of the text (b), reading and working oral summaries (c); reading and writing summaries (d), grammar exercises (e); writing sentences (f); writing paragraphs (g); preparing presentations (h),

any other activity practised but not mentioned in the question (i) and here, students have to provide it as an open answer .

	Sub-skills							
	a	b	c	d	e	f	g	h
Total	42	00	08	00	65	40	20	00

Table 5: The sub-skills practised during the course of English, according to the under-graduates .

When considering the above table, the first comment which first comes into one's mind is the weak rate of given answers. Indeed, the sub-skill which is practised the most consists in grammar exercises (e) according to 65% of students. Then, comes reading and explaining the vocabulary of texts (a) with 42%, writing sentences (f) with 40%, writing paragraphs (g) with 20%, and finally, reading and working oral summaries (c) with only 08%. No answer has been recorded for reading and studying relations between the different parts of the text (b), nor for reading and writing summaries (d), and not even for presentations (h).

As for the open question (i), nobody answered it. The answers are also different from each other, which may be explained again by the variety of teachers who take in charge the course of English within the same institute. Such information sheds light on the present difficulties of the teaching/learning situation, in the absence of official programmes and co-operation between teachers of English. This is likely to have a negative impact on the efficiency of learning English in this institution.

The following chart illustrates the results of question 10.

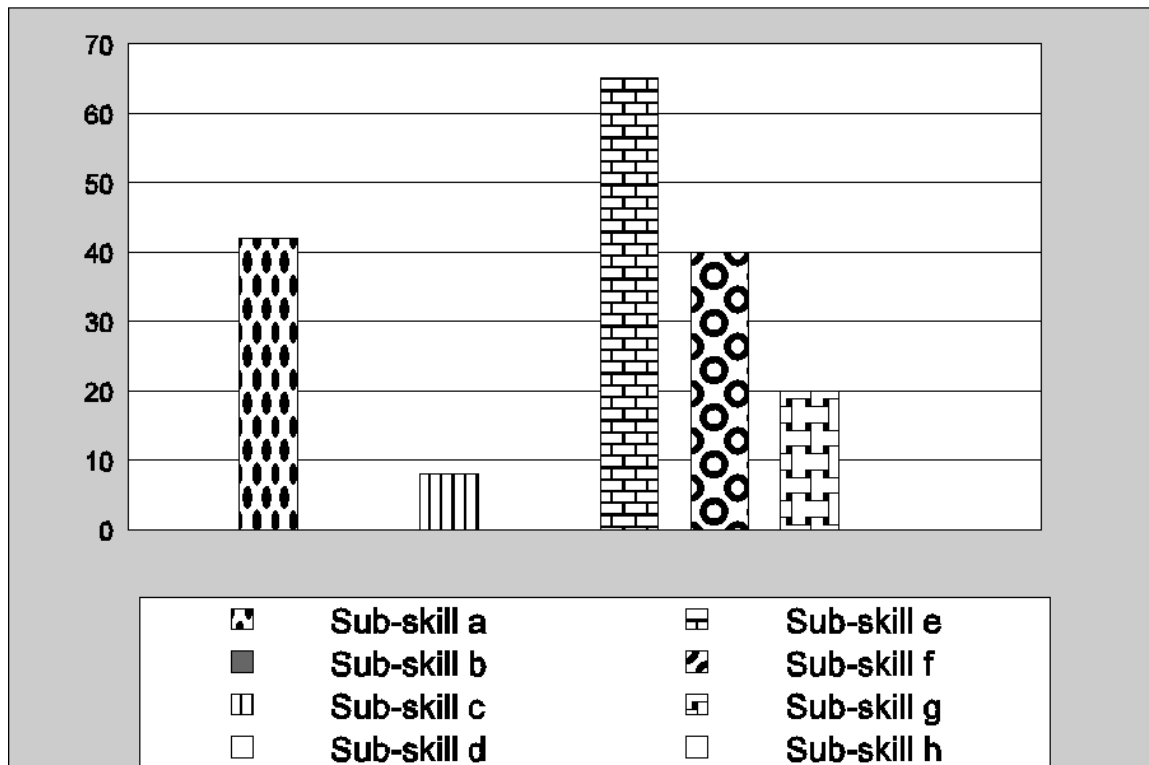


Figure 6: The sub-skills which are practised during the course of English.

Question 11: It is about the different reasons that lie behind the learning of English apart from its being compulsory as a module. Among these reasons, the question investigates whether English is learned because it is indispensable for studies (a), or useful for travels...etc. (b), and students can also answer an open question which allows them to cite any other reasons not mentioned in the question (c).

	The reasons for learning English			
	a) It is necessary for studies		b) It is useful (for travels...etc.)	
	Yes	NO	Yes	NO
Total	88	12	75	25

Table 6: The reasons for learning English, according to the under-graduates .

In the light of this table, it can be concluded that 88% of students think that learning English is necessary for their studies (a) and would like to master it to broaden their topical knowledge. However, 12% think it is not necessary for their studies (related to their subject) for which they would like to devote all their time. They even wish the exams of English were not compulsory, and they rarely attend the course (according to interviews and discussions).

As for the second reason which is that learning English is useful for travels (b), 75% agree, and 25% disagree.

As far as the open question related to this area of investigation (c), 40% would like to learn English to understand songs.

Question 12: It is about the strategies adopted by students when reading, such as trying to understand all the unknown words in the text (a), or trying rather to understand the general ideas (b), and students can also provide any other used strategy that is not mentioned in the question, as an answer (c).

	a	b
Total	71	29

Table 7: The strategies adopted by the under-graduates .

According to this table, 71% of the students who answered this question use strategy (a) while reading i.e. they try first to identify and understand all the words which are unfamiliar to them, by frequently checking dictionaries, or asking for explanations around them.

However, only 29% of students adopt strategy (b) while reading, which consists in skimming first, or trying to understand the global meaning of chunks of texts.

As for the open part of this question which allows students to cite any other strategy they use (c), the frequent use of dictionaries (English/Arabic, English/French), translation, and asking for help from people who know English, constitute the common strategies used by students.

Question 13: It deals with the register of English students would like to study, whether it is general interest English (a), English related to their subject of study (b), or both types of registers (c).

Total	General English (a)	Subject-related English (b)	Both registers of English (c)
	13	15	72

Table 8: The preferred register of English according to the under-graduates .

The above table shows clearly that 72% of students prefer to study both registers of English i.e. general English, and subject-related English. They think this will help them to master English, which they can use in different situations, like in travels.

However, 15% of the students prefer to study subject-related English, and 13% opt for general English.

Question 14: Deals with the skills which need to be reinforced according to the students, and with respect to their studies. These skills should be ranked from '1' to '4' , number '1' being the most important skill that needs reinforcement .

Total	a) listening comprehension				b) oral expression				c) written expression				d) reading comprehension			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	28	29	23	20	23	25	29	23	14	31	24	31	35	15	24	26

Table 9: The skills that need reinforcement according to the under-graduates .

In the light of this table, reading comprehension seems to be the skill which needs to be reinforced the most. Indeed, it has been assigned the highest priority (number 1) by 35% of students, followed by listening comprehension with 28%, oral expression with 23%, and finally by written expression with 14%.

As for the second degree (number 2) of priority, it has been attributed to written expression by 31% of students, followed by listening comprehension with 29%, oral expression with 25%, and reading comprehension with 15% .

However, the third degree (number 3), has been allocated first to oral expression by 29% of students, then to both written expression and reading comprehension with an equal percentage of 24%, followed by listening comprehension with 23%.

Finally, the fourth degree of priority has been asserted to written expression by 31% of students, then to reading comprehension with 26%, followed by oral expression with 23%, and listening comprehension with 20%.

We notice therefore, that 'written expression' has been attributed both the second and the fourth degrees. This may show that the students, or at least, some of them are not conscious of their target needs. In other words, the students' felt needs do not seem to join the objectives of the course which should match the target needs. Thus, it will be interesting to compare all the results of this question which has also been asked to the other informants, i.e., the post-graduates, the former post-graduates, and the teachers (in chapter 4, 'discussion of results').

The following chart presents the results of question 14.

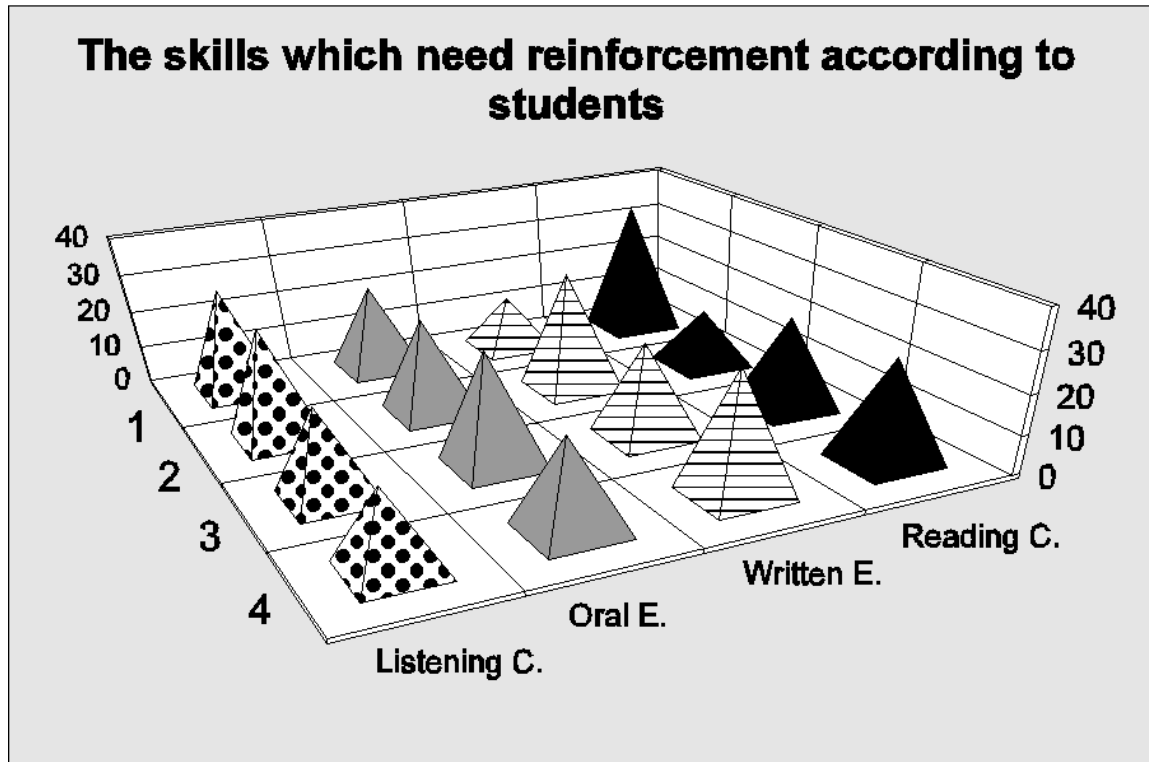


Figure 7: The skills which need reinforcement according to under-graduates.

Question 15: Students here have to indicate which activity (ies) they think is (are) most appropriate for their studies, among the different activities pertaining to the four skills: listening comprehension (A), written expression (B), oral expression (C), and reading comprehension (D). The results are presented in, respectively, tables 10 A, 10 B, 10 C, and 10 D. At the end of each set of activities, there is an open question so that students can add any other sub-skill not mentioned in the question, and needed for their studies.

The different activities are :

(A) Listening comprehension

- (a) Understand lectures in English .
- (b) Understand subject-related conversations .
- (c) Understand general conversations .
- (d) Understand television programmes .

(B) Written expression

- (a) Write subject-related reports and articles .
- (b) Take notes (lectures, conferences) .
- (c) Write letters, fill in forms .

(C) Oral expression

- (a) Take part in general conversations .
- (b) Take part in subject-related conversations .
- (c) Present an oral report .

(D) Reading comprehension

- (a) Read subject-related literature (articles, books)
- (b) Read general literature (magazines, newspapers)

	Listening comprehension (Skill A)			
	Activity (a)	Activity (b)	Activity (c)	Activity (d)
Total	44	71	66	43

Table 10A: The different activities as indicated by the under-graduates, according to their priority and relevance for their studies .

Under listening comprehension (skill A), the activity which has been considered as being very appropriate for studies of speciality, is ‘understanding subject-related conversations’ (b), according to 71% of students. Then, comes (c) which stands for ‘understanding general conversations’ with 66%, followed by (a), corresponding to ‘the

comprehension of lectures in English' with 44%, and finally, by (d), related to 'understanding T.V. programmes' with 43%.

Total	Written expression (Skill B)		
	Activity (a)	Activity (b)	Activity (c)
	68	43	42

Table 10B: The different activities chosen by the under-graduates for their appropriateness for their studies .

Under skill (B), which is written expression, 'writing subject-related reports and articles', (activity a), has been designed as being very appropriate by 68% of students, followed by 'note taking during lectures and conferences' (b) with 43%, then 'writing letters, filling forms' (c) with 42%.

Total	Oral expression (Skill C)		
	Activity (a)	Activity (b)	Activity (c)
	60	78	65

Table 10C : The different activities chosen by the under-graduates, according to their priority and appropriateness for their studies.

Under oral expression, 'taking part in subject-related conversations' (b), has been chosen for its appropriateness by 78% of students, then comes activity 'c' which is 'presenting an oral report' with 65%, and finally, 'participating in general conversations' (a) with 60%.

Total	Reading comprehension (Skill D)	
	Activity (a)	Activity (b)
	63	37

Table 10D : The activities (under skill D) the under-graduates have indicated, as being appropriate for their studies.

Concerning reading comprehension (D), ‘reading subject-related literature’ (a) was chosen by 63% of students, while ‘reading general literature’ (b), follows with 37%.

As for the open questions which come at the end of each set of activities, nobody answered them .

The following chart illustrates the results of the four tables which represent question 15.

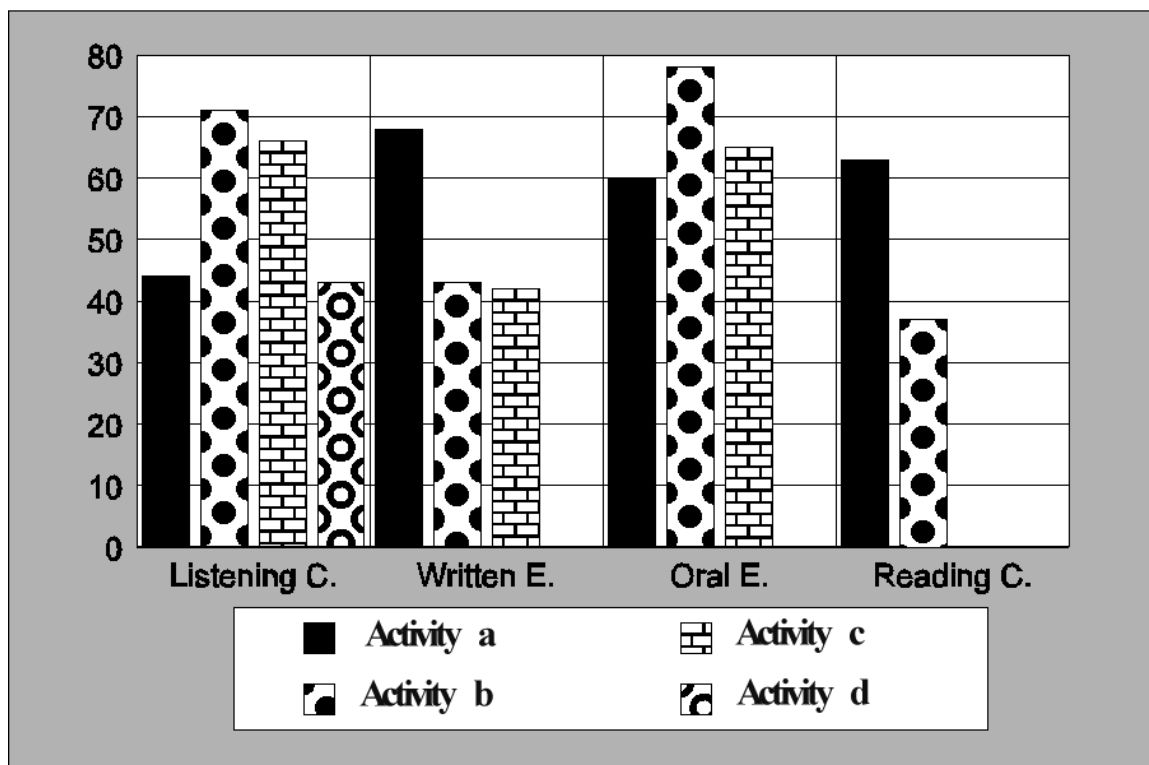


Figure 8: The different activities chosen by the under-graduates.

Question 16, investigates whether the amount of instruction in English is sufficient, and if not, students should suggest the number of hours of instruction they would like to have in question 17 .

	Question 16		Question 17		
	Yes	No	2 to 4 hours	4 to 6 hours	6 to 8 hours
Total	05	92	62	17	00

Table 11 : Questions 16 and 17, about the amount of instruction in English .

Concerning the amount of instruction, the majority of students agree that it is insufficient (92%). As for the amount of instruction suggested by students, 62% have opted for an amount varying between 2 and 4 hours.

Question 18: investigates whether students have any suggestions concerning the course of English, to put forward.

In general, students insisted on grammar as the best tool which will help them construct correct sentences; as for vocabulary, students think it can be worked and developed progressively. However, they would like to devote more time to listening in language laboratories than what they have done so far. They would like also to have more time to practise speaking and communication .

In addition to this, students think that the introduction of the video will help them understand better, and improve their English. Finally, learning in small groups is favoured by the students.

3.3 - Data analysis of the post-graduates' questionnaires:

These results concern first year post-graduate students. As sampling at this level concerned only students who graduated recently, and succeeded at the entry tests for post-graduate studies, it was not possible to have a number of ten students in each speciality. However, a number of six students in each speciality was possible. Moreover, post-graduate studies were interrupted for some years at the institute of natural sciences, or biology. Therefore, these results concern only nine institutes instead of ten.

The different codes assigned to the different institutes therefore, are as follows : In ICPG for instance, the initials 'PG' stand for post-graduate., while 'IC' represents the institute of Industrial Chemistry. So, PHPG is physics, MthPG mathematics, ElnPG electronics, ChPG chemistry, CPPG computer- sciences, EthPG earth-sciences, CEPG Civil-engineering, and MEPG mechanical-engineering.

Questions 1/2	Question 3		Question 4				Question 5
	F	M	1	2	3	4	See results in appendix A.
Total	24	30	04	14	28	08	

Table 12: Answers for questions '1', '2', '3', '4', and '5' .

There are 24 females, and 30 males (question 3).

The average age calculated for all the post-graduates according to the different classes of age is 25,2 (question 4).

All of them studied three years at the lycée (those who studied another language than English were not given questionnaires), and they all have studied English for one, two, or even three years at the under-graduate level (question 5) .

Question 6 : It is about the different skills in which students say they meet difficulties.

	Oral expression	Written expression	Reading - comprehension	Listening-comprehension
Total	51	40	39	49

Table 13 : The Skills in which the post-graduates say they meet difficulties.

The skill which seems to cause a great deal of difficulty to most post-graduates at the USTHB is oral expression according to 51 out of 54 students. It is followed by listening comprehension with 49 out of 54, then comes written expression with 40 students out of 54, and finally, reading comprehension with 39 students. These results may be quite understandable if we refer back to the teaching situation (in the introduction) and recall that listening is rarely practised. Oral expression is also neglected as we shall see in the results of question 14, from the teachers' questionnaires. Thus, students feel that they have more deficiencies in these two mentioned skills than in reading/writing which they should place at the top of their concerns, being research students.

The following chart presents the results of question 6.

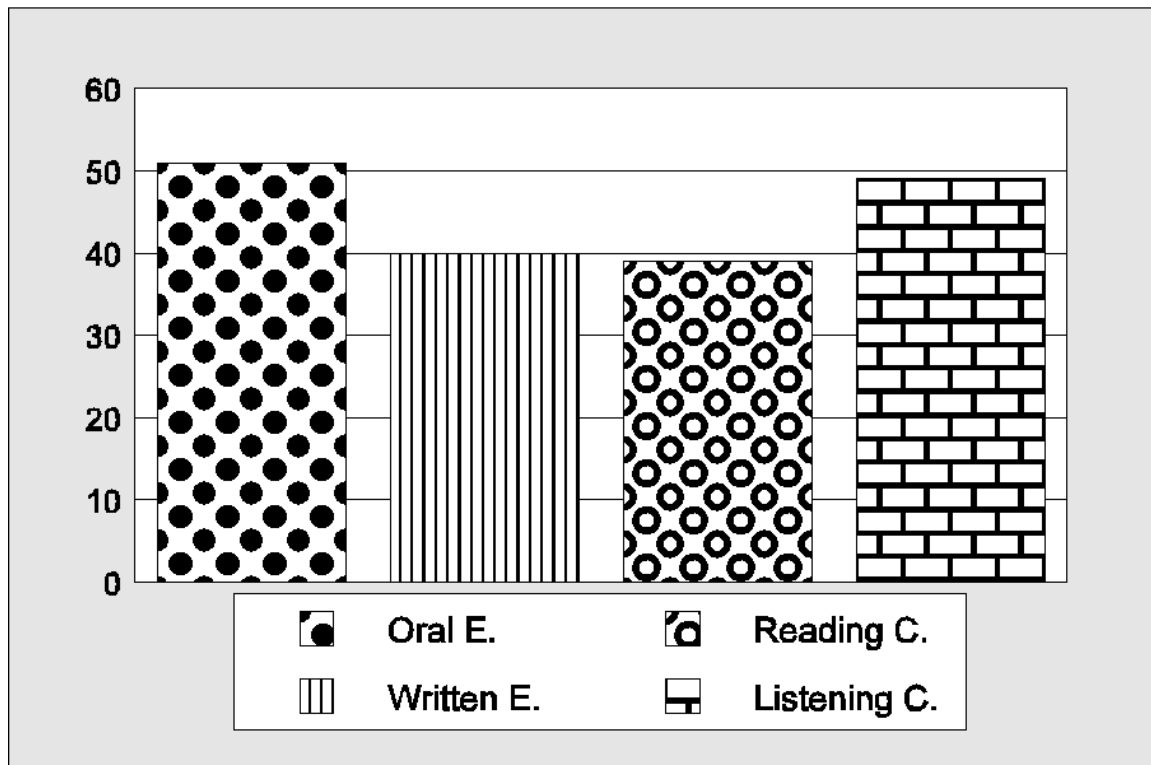


Figure 9: The skills in which post-graduates meet difficulties.

Question 7: About some language components (some aspects of vocabulary and grammar) which cause problems of comprehension for students, when reading. The results are presented in tables 14A, and 14B.

	Single Words	compounds
Total	32	46

Table 14A : The aspects of language concerning vocabulary, which seem to cause difficulty for the post-graduates in reading comprehension.

According to this table, and concerning the aspects of vocabulary (single words and compounds), post-graduates meet difficulties when reading, mainly with compounds, according to 46 students out of 54. However, single words cause difficulties in reading, to 32 students out of 54.

	connectives	passive voice	quantity expressions	comparatives	word formation
Total	44	40	29	37	46

Table 14B : Some grammar components which seem to cause difficulty for post-graduates in reading comprehension.

The total of answers concerning some grammar aspects which cause difficulty to students when reading, shows clearly that word-formation is the component which causes the greatest deal of problems according to 46 out of 54 post-graduates. Connectives follow with 44 out of 54, then the passive voice with 40 out of 54, the comparatives with 37, and finally, quantity expressions with 29 out of 54 post-graduates.

The different answers to the open question, students mentioned their problems with sentence formation, and idiomatic expressions.

According to these results, it seems that postgraduates meet difficulties with a wide range of grammatical aspects, although grammar is one of the most practised component in the course of English at the USTHB (results of question 9). The persistence of these grammatical difficulties may be related to the way of teaching grammar in a discreet way, while it should be done in an integrative, meaningful context (to be developed in chapter 4).

The following chart illustrates the results of question 7.

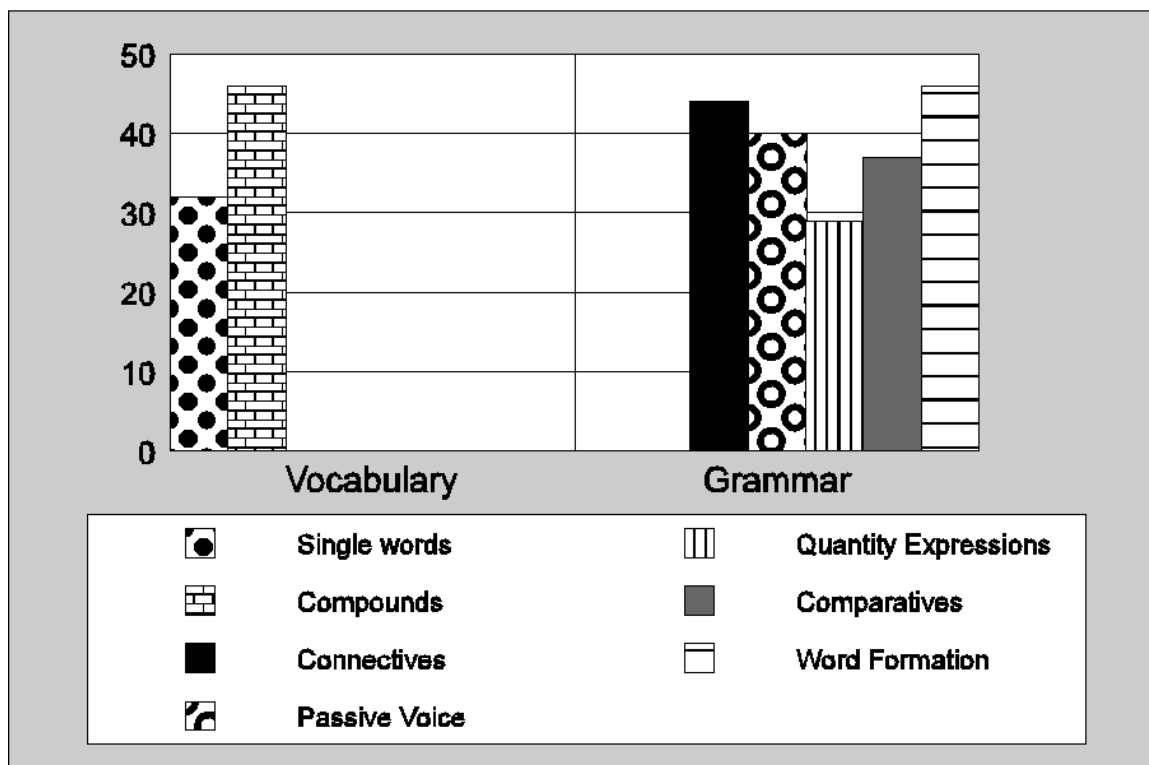


Figure 10: Aspects of language which cause difficulties to post-graduates.

Questions 8 and 9: Are about the register of English (question 8) students learn at the USTHB, and the different skills which are practised during their course of English (question 9).

	GE	GSE	TE	A	B	C	D	E
Total	36	45	00	46	24	45	40	50

Table 15 : The register of English which is studied, and the different skills that are covered .

The year of the distribution of the questionnaires, three teachers took charge of the English course for post-graduates. We can find therefore in the different groups of the three teachers students from the same institute. It depends on the option of their speciality, or on their personal schedules.

According to this table based on students' answers, the register of English which is generally studied at the post-graduate level is general science English first, according to 45 students out of 54, followed by general interest English with 36 out of 54.

However, concerning the study of the different skills the most practised one at the post-graduate level according to this table is reading (E) according to 50 students out of 54, followed by grammar (A) exercises with 46, then listening (C) with 45, writing (D) with 40, and finally, oral expression (B) with 24 out of 54 students.

The following chart illustrates questions 8 and 9.

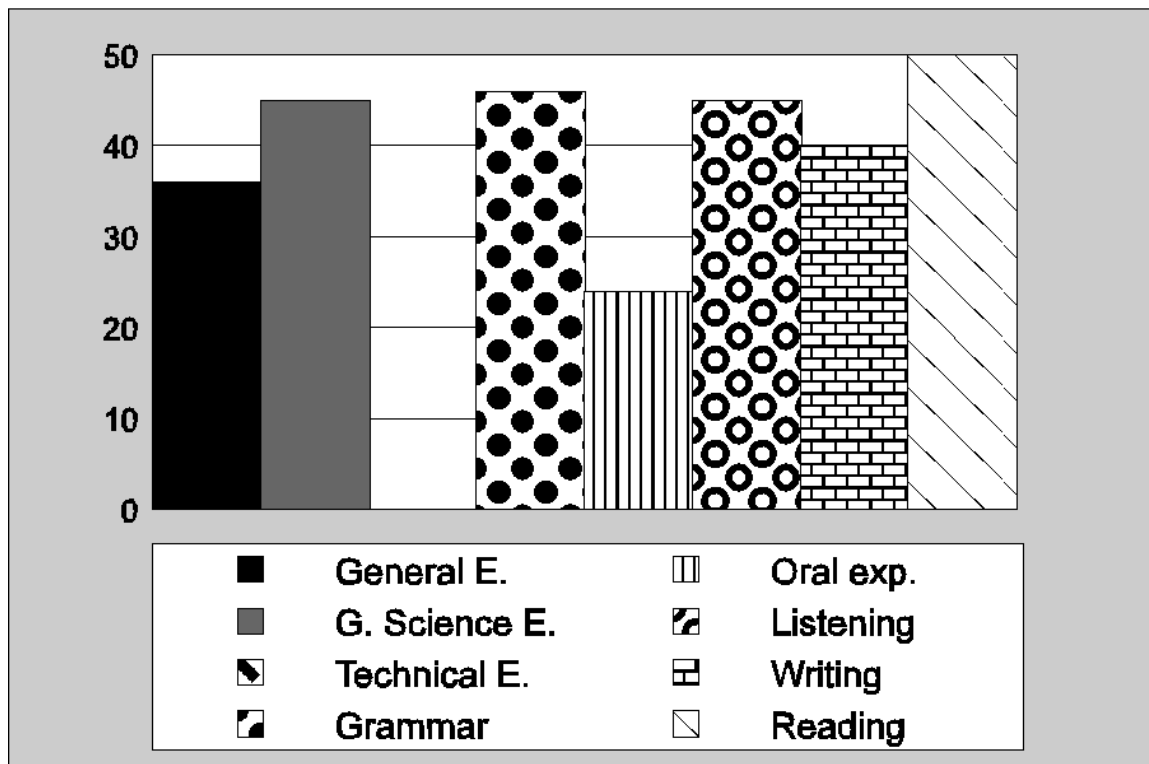


Figure 11: The register of English and the skills which are studied.

Question 10: is about the sub-skills which are practised during the course of English, according to the post-graduates .

	Sub-skills							
	a	b	c	d	e	f	g	h
Total	40	32	41	41	42	44	36	38

Table 16 : The sub-skills practised during the course of English, according to the post-graduates .

In the light of this table, one can state that the sub-skill which is practised the most consists in writing sentences (f), according to 44 out of 54 students. Then, come grammar exercises (e) with 42, followed by both reading and making oral summaries (c), as well as reading and writing summaries (d) with an equal number of 41 students out of 54. Preparing presentations (h) is practised according to 38 students, while writing paragraphs (g) follow with 36, and finally, reading and studying the different relations in the text (b) come with 32 students out of 54.

Some of the answers to the open question (i) mention the practise of translation, and the practice of some exercises related to phonetics.

The following chart illustrates the results of question 10.

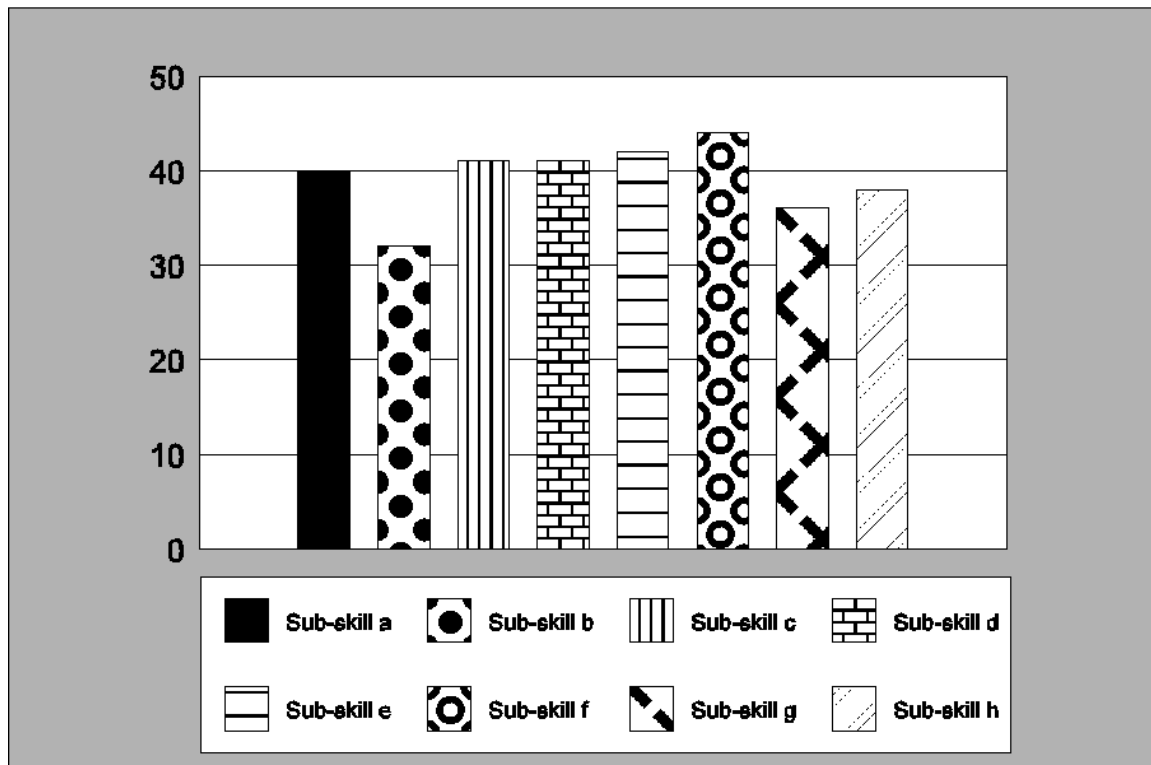


Figure 12: The language sub-skills which are practised during the course.

Question 11: It is about the different reasons that lie behind the learning of English apart from its being compulsory as a module.

Institute	The reasons for learning English			
	a) It is necessary for studies		b) It is useful (for travels...etc.)	
	Yes	NO	Yes	NO
Total	53	01	35	19

Table 17 : The reasons for learning English .

In the light of this table, one can state that almost all students, that is 53 out of 54, think that learning English is necessary for their studies (a) , while only 35 students agree that learning English is useful for travels (b).

No answer has been given to the open question (c).

Question 12: It is about the strategies adopted by students when reading

	a	b
Total	26	44

Table 18 : The strategies adopted by the post-graduates .

According to this table, 44 students out of 54 adopt strategy (b) while reading, which consists in trying to understand the global meaning of texts. While 26 students use strategy (a) in reading i.e. they try first to identify and make sense of all the words which are unfamiliar to them.

As for the open part of this question which allows students to cite any other strategy they use (c), the frequent use of dictionaries, in addition to translation again, and asking for help from people who know English, constitute the given answers by students.

Question 13: It deals with the register of English post-graduates would like to study .

	General English (a)	Subject-related English (b)	Both registers of English (c)
Total	00	12	42

Table 19 : The preferred register of English according to post-graduates .

In the light of this table, it can be seen clearly that 42 students out of 54 prefer to study both registers of English i.e. general interest English, and subject-related English, while 12 students only prefer to study subject-related English.

Question 14: Deals with the skills which need to be reinforced according to the students, and with respect to their studies. These skills should be ranked from '1' to '4' , number '1' being the most important skill that needs reinforcement .

	a) listening comprehension				b) oral expression				c) written expression				d) reading comprehension			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Total	19	12	13	10	08	16	14	16	05	19	14	16	22	07	13	12

Table 20 : The skills that need reinforcement according to the post-graduates .

According to this table, reading comprehension seems to be the skill which needs to be reinforced the most. Indeed, it has been assigned the highest priority (number 1) by 22 students out of 54, followed by listening comprehension with 19 students, oral expression with 08 students, and finally by written expression with 05 students out of 54.

The second degree (number 2) of priority however, has been attributed to written expression by 19 students out of 54, followed by oral expression with 16 students, then listening comprehension with 12 students, and finally, by reading comprehension with 07 out of 54 students.

As for the third degree (number 3), it has been allocated to both oral expression, as well as to written expression with an equal number of 14 students each time, followed by reading comprehension, and listening comprehension with also an equal number of 13 students.

Finally, the fourth degree of priority has been assigned to both written expression, and to oral expression by an equal number of 16 students, followed by reading comprehension with 12 students, and finally by listening comprehension by 10 students. Post-graduates therefore seem to be aware of their target needs as research students, since they ranked reading in the first position, then writing in the second place

The following chart illustrates the results of question 14.

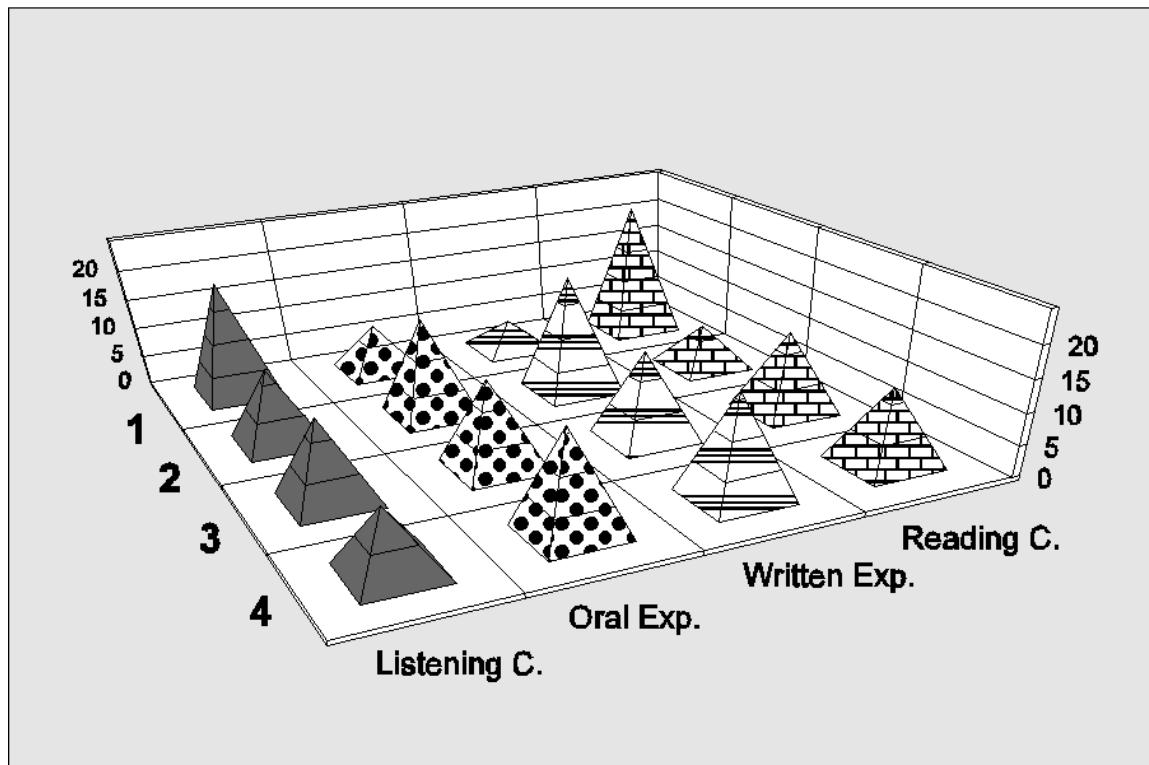


Figure 13: The skills which need reinforcement according to post-graduates.

Question 15: Students here have to indicate which activity(ies) is (are) appropriate for their studies, among the different activities of the four skills.

	Listening comprehension (Skill A)			
	Activity (a)	Activity (b)	Activity (c)	Activity (d)
Total	28	54	43	26

Table 21A : The different activities as indicated by the post-graduates, according to their priority and appropriateness for their studies .

Under listening comprehension (skill A), and according to all the post-graduates concerned by the questionnaires, i.e. the 54 students, the activity which has been considered as being very appropriate for studies of speciality, is ‘understanding subject-related conversations’ (b). Then, follows (c) which stands for ‘understanding general conversations’ with 43 students, (a) which corresponds to ‘the comprehension of

lectures in English’ with 28 students, and finally (d), related to ‘understanding T.V. programmes’ with 26 students out of 54.

Total	Written expression (Skill B)		
	Activity (a)	Activity (b)	Activity (c)
	53	41	32

Table 21B : The different activities chosen by the post-graduates for their appropriateness for their studies .

Under skill (B), which is written expression, ‘writing subject-related reports and articles’, (activity a), has been designed as being very appropriate to studies of speciality by 53 out of 54 students, followed by ‘note taking during lectures and conferences’ (b) with 41 students, then ‘writing letters, filling forms’ (c) with 32 students.

Total	Oral expression (Skill C)		
	Activity (a)	Activity (b)	Activity (c)
	41	53	38

Table 21C : The different activities chosen by the post-graduates, according to their priority and appropriateness for their studies.

Under oral expression, ‘taking part in subject-related conversations’ (b), has been indicated as being very appropriate to the studies of speciality by 53 out of 54 students, then comes activity ‘a’ ‘participating in general conversations’ with 41 students, and finally (c) which is ‘presenting an oral report’ with 38 students.

As an answer to the open question concerning skill ‘C’, some post-graduates cited songs as being very useful to be fluent in English.

Total	Reading comprehension (Skill D)	
	Activity (a)	Activity (b)
	54	38

Table 21D : The activities (under skill D) post-graduates have indicated, as being appropriate for their studies.

Concerning reading comprehension (D), ‘reading subject-related literature’ (a) has been chosen for its appropriateness to studies of speciality by the 54 post-graduates concerned by the questionnaires, while ‘reading general literature’ (b), follows with 38 students.

As for the open questions which come at the end of each set of activities, nobody answered them .

The following chart illustrates the results of question 15.

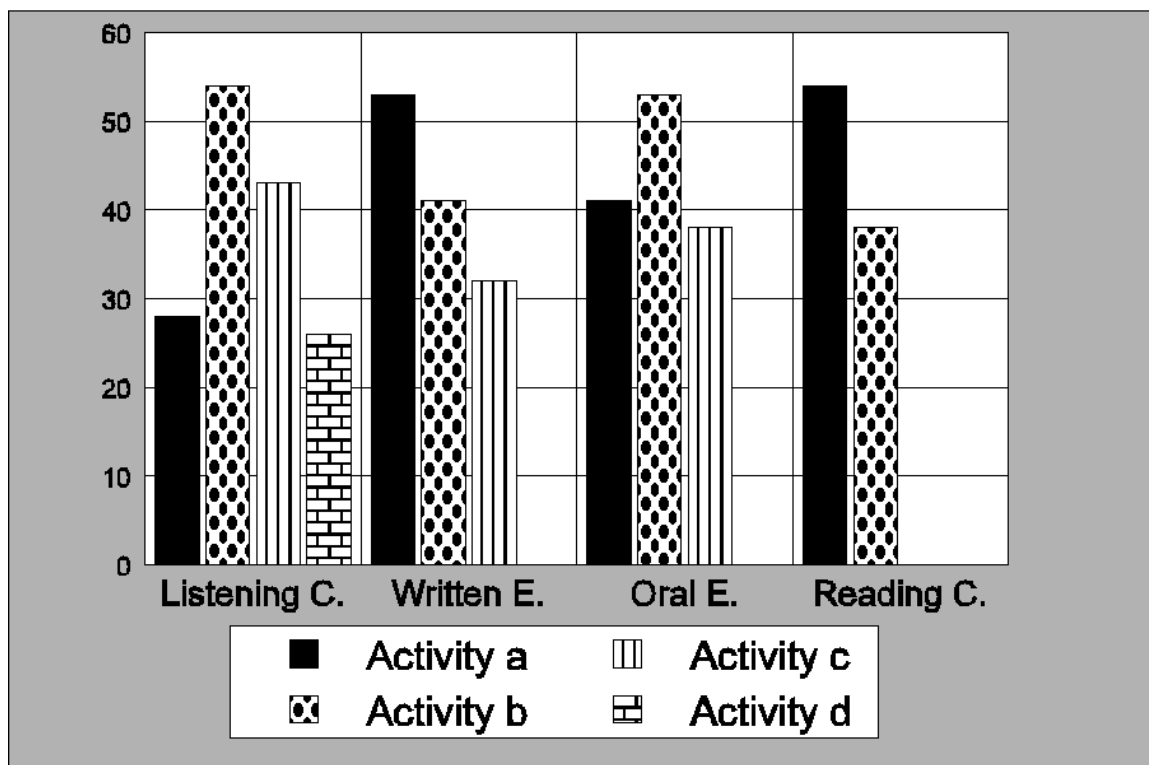


Figure 14: The different activities chosen by the post-graduates.

Under each skill, different activities have been designed by different letters, like : a, b, c, and d. For the sake of clarity of the chart, all the activities having the same

alphabetical letter (although different in content), have been designed by the same letter, and the same pattern in the legend .

Question 16, investigates whether the amount of instruction in English is sufficient, and if not, post-graduates should suggest the number of hours of instruction they would like to have in question 17 .

	Question 16		Question 17		
	Yes	No	2 to 4 hours	4 to 6 hours	6 to 8 hours
Total	01	53	32	21	00

Table 22 : Questions 16 and 17, about the amount of instruction in English .

Concerning the amount of instruction, most students agree that it is insufficient i.e. 53 out of 54. The amount of instruction suggested by students, varies between 2 to 4 hours, according to 32 students, and 4 to 6 hours according to 21 other students. Only one student out of the 54 post-graduates concerned by the questionnaires, thinks that the amount of English instruction is sufficient.

Question 18: investigates whether students have any suggestions concerning the course of English, to put forward.

Most post-graduates suggest the study of general English at the under-graduate level, and subject-related English at the post-graduate level, where the different specialities should be separated to organise seminars, presentations, and to study subject-related articles in the different specialities.

They insist on reinforcing listening, through the study of the basics of phonetics, through dictation, and listening to songs. This will also allow them to develop their oral expression which should as well be reinforced, according to them.

They suggest the introduction of the video in teaching, which they think, will improve their learning of English. They would like also to have some notions related to writing for research.

Finally, they suggest to give more importance to the module of English in the general average, and to deliver at the end of each course, certificates of aptitude to increase the motivation of students.

3.4- Data analysis of the former post-graduates' questionnaires:

Questions 1 to 5:

As in the two previous questionnaires, questions from 1 to 5 depict the profile of the informants. Questions 1 (institute) and 2 (year of study) are included in the code assigned to each sample. Only nine institutes are represented, since post-graduate studies were interrupted for some years at the institute of natural sciences.

Thus, one sample has been chosen randomly to represent each institute. The initials FP stand for former post-graduate. The other initials represent the different institutes as in the other two previous questionnaires. IC, therefore, stands for industrial chemistry, Ph for physics, Mth for mathematics, Eln for electronics, Ch for chemistry, CP for computer sciences, Eth for earth sciences, CE for civil engineering, and ME for mechanical engineering.

Questions 1/2	Question 3		Question 4				Question 5	
	F	M	1	2	3	4	1	2
Total of answers	05	04	00	00	04	05	See details in appendix A.	

Table 23 : Answers for questions '1', '2', '3', '4', and '5' .

There are 05 females, and 04 males (question 3).

The average age of the former post-graduates therefore, is 27.6

All of them studied three years at the lycée (those who studied another language than English were not given questionnaires), and all of them have already studied English either for one, two, or even three years at the under-graduate level (question 5) .

Almost all of them are teachers at the USTHB (8 out of 9). The ninth informant (from the institute of earth sciences) is working in a mixed oil company, where English is one of the languages used by the staff.

Question 6 : It is about the difficulty of the different skills.

	Oral expression	Written expression	Reading - comprehension	Listening-comprehension
Total	09	08	07	09

Table 24 : The skills in which former post-graduates say they meet difficulties.

The skills which seem to cause a great deal of difficulty to most former post-graduates at the USTHB is oral expression, and listening comprehension with an equal number of 09 FPs (Former Post-graduates), each time. They are followed by Written expression with 08 FPs, and finally by reading comprehension with 07 out of 9 FPs.

Here again, oral expression and listening comprehension seem to cause difficulties to former post-graduates and this is perhaps related to the absence of their practice in their previous courses of English, as this seems common to all the other informants among the students.

The following chart illustrates the results of question 6.

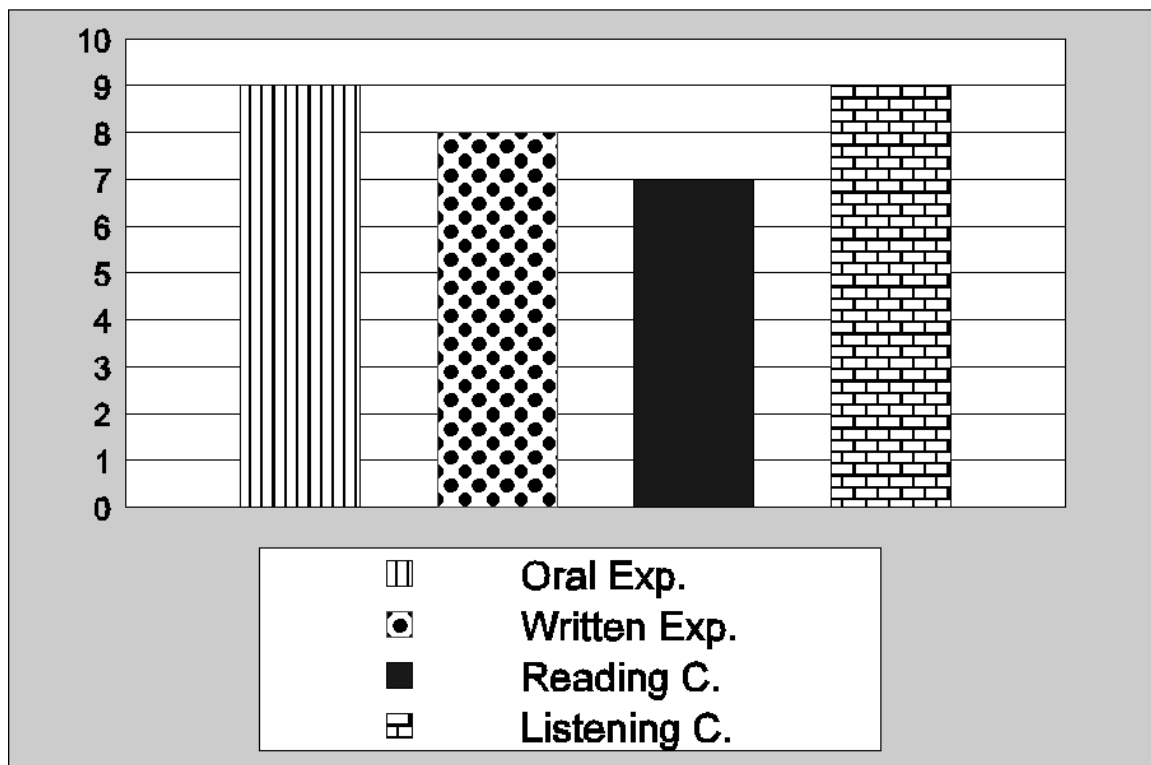


Figure 15: The skills in which former post-graduates meet difficulties.

Question 7: It deals with some language components (some aspects of vocabulary and grammar) which cause problems of comprehension for the informants, when reading. The table below concerns some aspects of vocabulary, like single words and compounds.

	Single Words	compounds
Total	06	09

Table 25A : The aspects of language concerning vocabulary, which seem to cause difficulty for former post-graduates in reading comprehension.

According to this table, both aspects of vocabulary (single words, and compounds) cause difficulty to former post-graduates when reading. Indeed, all of them (9) meet problems, when reading, mainly with compounds, and 6 of them also have difficulties with single words.

The following table however, concerns grammar components which seem to cause difficulties to students, in reading comprehension.

	connectives	passive voice	quantity expressions	comparatives	word formation
Total	09	07	03	05	09

Table 25B : Some grammar components which seem to cause difficulty for former post-graduates in reading comprehension.

In the light of this table it can be stated that connectives and word formation are the grammar aspects which cause a lot of difficulties in reading comprehension according to all the FPs (9). The passive voice follows with 7 out of 9, the comparatives with 5, and finally, quantity expressions with 3 FPs only.

Concerning the open question related to this part (c), 5 FPs also meet difficulties with pronouns, and 4 others with tenses.

These results show that at the end of their course, students at the USTHB still meet difficulties related to vocabulary and grammar, although these components are being

taught in the English course at the different levels. The problem may reside in the way of teaching them, which should therefore be reconsidered, as in the examples given in the suggestions and recommendations (chapter 4).

The following chart presents the results of question 7.

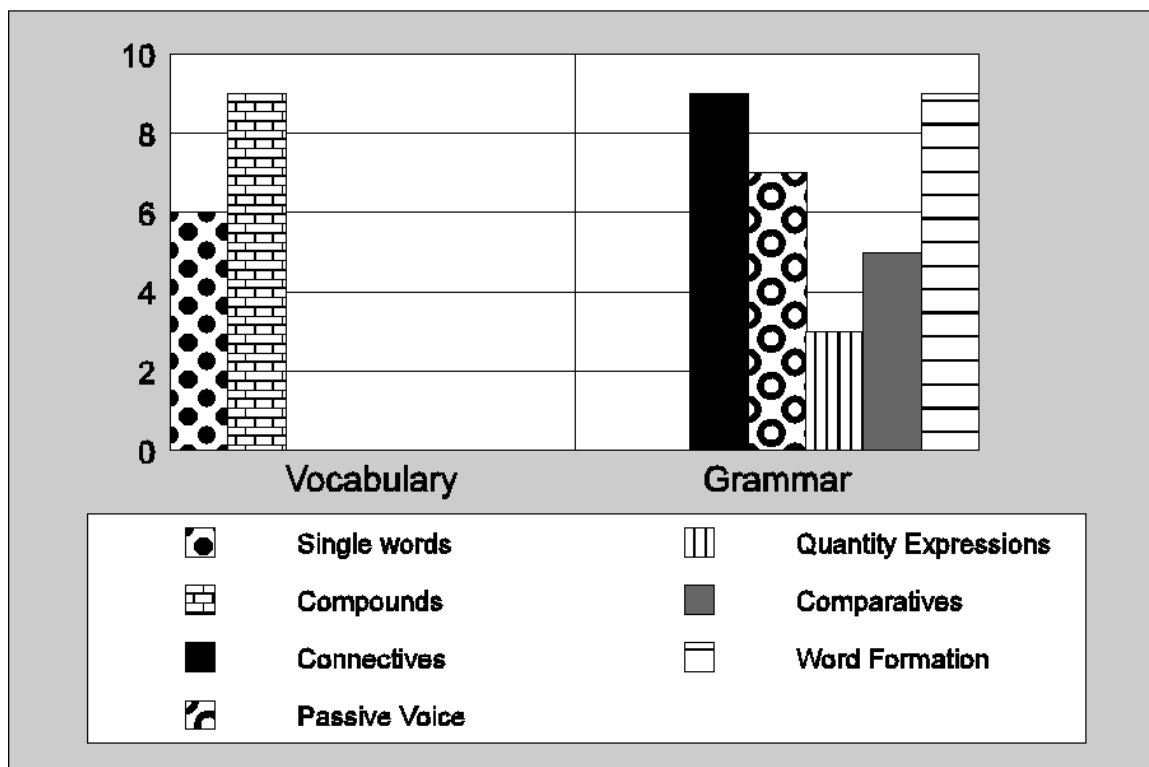


Figure 16: Language Aspects causing difficulties to former post-graduates

Questions 8 and 9: Are about the register of English (question 8) former post-graduates have had at the USTHB), i.e. general (GE), general science (GS), or technical English (TE). They should specify (question 9) whether grammar (A), oral expression (B), listening (C), writing (D), and reading (E) have been practised during their course of English

	GE	GSE	TE	A	B	C	D	E
Total	05	02	04	08	05	04	05	04

Table 26 : The register of English which is studied, and the different skills that are covered .

In the light of this table, it can be stated that the register of English which former post-graduates have had is general interest English, as asserted by 5 FPs, followed by technical English according to 4 FPs, and 2 of them have also had general science English.

Concerning the study of the different skills however, one can state that the skill which has been practised the most is grammar (a) according to 8 Fps, followed by oral expression (b), and writing (d) with an equal number of 5, then by then listening (c) and reading (e)with also an equal number of 4 out of 9 FPS.

The following chart illustrates the results of questions 8 and 9.

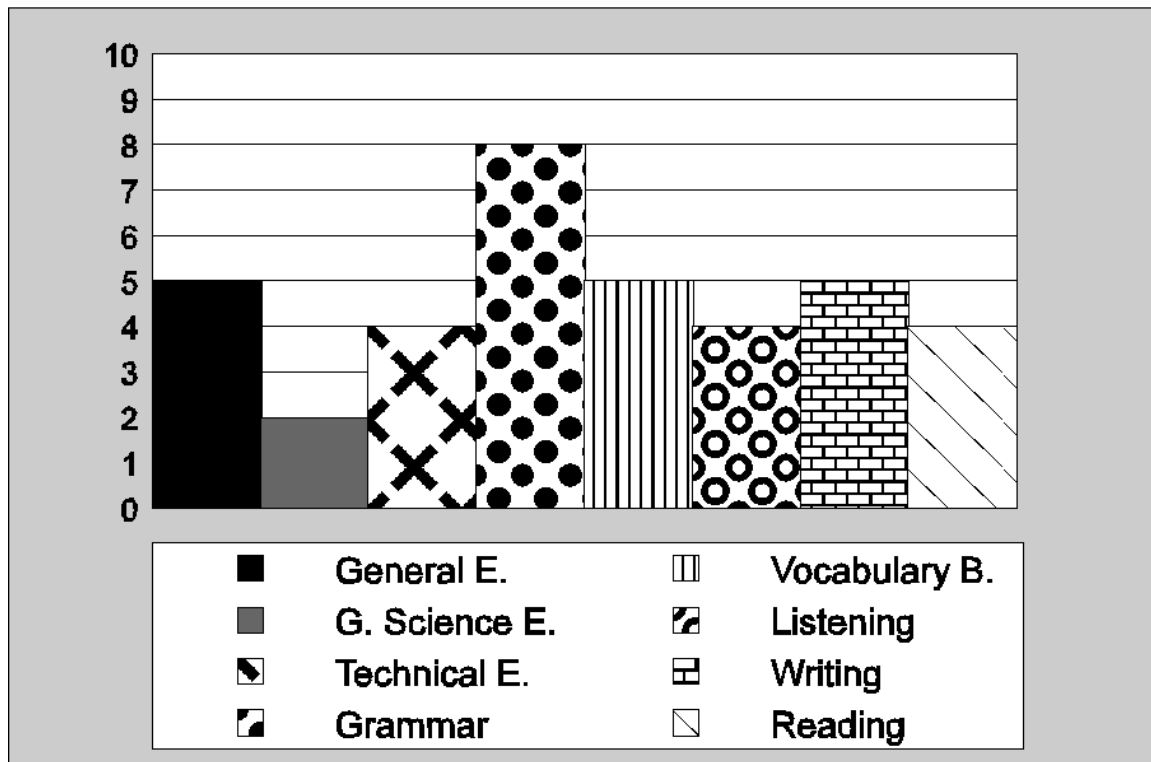


Figure 17: The register of English and the skills which are studeid.

Question 10: is about the sub-skills which are practised during the course of English, according to the students .

Total	Sub-skills							
	a	b	c	d	e	f	g	h
	09	00	00	03	05	08	01	00

Table 27 : The sub-skills practised during the course of English, according to former post-graduates .

According to this table, reading and explaining the vocabulary of texts (a) is the most practised sub-skill as asserted by all the 9 FPs. Then, follows writing sentences (f) with 8 FPs, grammar exercises (e) with 5 FPs, reading and writing summaries (d) with 3 FPs, and finally, writing paragraphs (g) according to only 1 FP. No answer (0) has been given for reading and studying relations between the different parts of the text (b), nor for reading and working oral summaries (c), and not even for presentations (h).

Nobody answered the open question (i).The following chart illustrates the results of question 10.

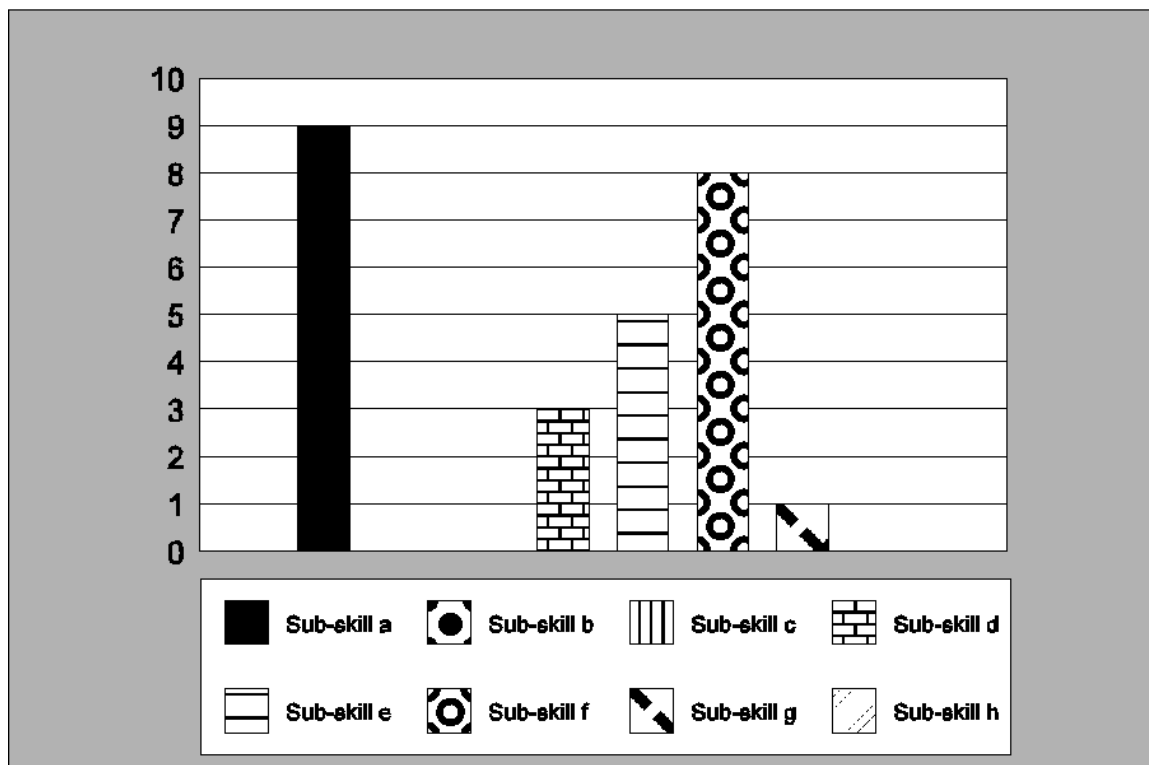


Figure 18: The sub-skills which are practised during the course of English.

Question 11: It is about the different reasons that lie behind the learning of English apart from its being compulsory as a module.

	The reasons for learning English			
	a) It is necessary for studies		b) It is useful (for travels...etc.)	
	Yes	NO	Yes	NO
Total	09	00	06	03

Table 28: The reasons for learning English .

This table shows clearly that all the FPs (9), think that learning English is necessary for their studies (a).

As for the second reason which is that learning English is useful for travels (b), 6 FPs agree, while 3 others disagree.

As far as the open question related to this area of investigation (c), no answer has been registered.

Question 12: It is about the strategies adopted by students when reading

	a	b
Total	05	04

Table 29: The strategies adopted by former post-graduates .

In the light of this table, 5 FPs out of 9 use strategy (a) while reading i.e. they try first to understand all the words which are unfamiliar to them.

However, the other 4 FPs use strategy (b) while reading, which consists in trying to understand the global meaning of texts first.

As for the open part of this question which allows students to cite any other strategy they use (c), the use of dictionaries, and translation are the common strategies used by students.

Question 13: It deals with the register of English students would like to study .

Institute	General English (a)	Subject-related English (b)	Both registers of English (c)
Total	00	04	05

Table 30 : The preferred register of English according to the former post-graduates .

According to this table 5 FPs out of 9 prefer to study both registers of registers i.e. general interest English, and subject-related English.

However, the other 4 FPs prefer to study subject-related English.

Question 14: Deals with the skills which need to be reinforced according to the students, and with respect to their studies. These skills should be ranked from '1' to '4' , number '1' being the most important skill that needs reinforcement .

Total	a) listening comprehension				b) oral expression				c) written expression				d) reading comprehension			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	02	01	05	01	00	02	02	05	07	00	01	01	00	06	01	02

Table 31 : The skills that need reinforcement according to the former post-graduates

According to this table, written expression seems to be the skill which needs to be reinforced the most. Indeed, it has been assigned the highest priority (number 1) by 7 FPs, followed by listening comprehension with 2 FPs.

The second degree of priority has been allocated to reading comprehension by 6 FPs, followed by oral expression with 2 FPs, and finally by listening comprehension with 1 FP out of 9.

As for the third degree (number 3) of priority, it has been attributed to listening comprehension by 5 FPs, followed by oral expression with 2 FPS, and by both written expression as well as reading comprehension with 1 FP each time.

The fourth degree (number 4) however, has been allocated to oral expression by 5 FPs, then to reading comprehension with 2 FPs, and finally, by both listening comprehension as well as by written expression with 1 FP each time.

These results show that former post-graduates are aware of their needs, since they placed writing in the first position. This seems quite understandable when we know that at this stage, one of their in-service academic activities is to write in English, papers related to their subject-matter.

The following chart presents the results of question 14.

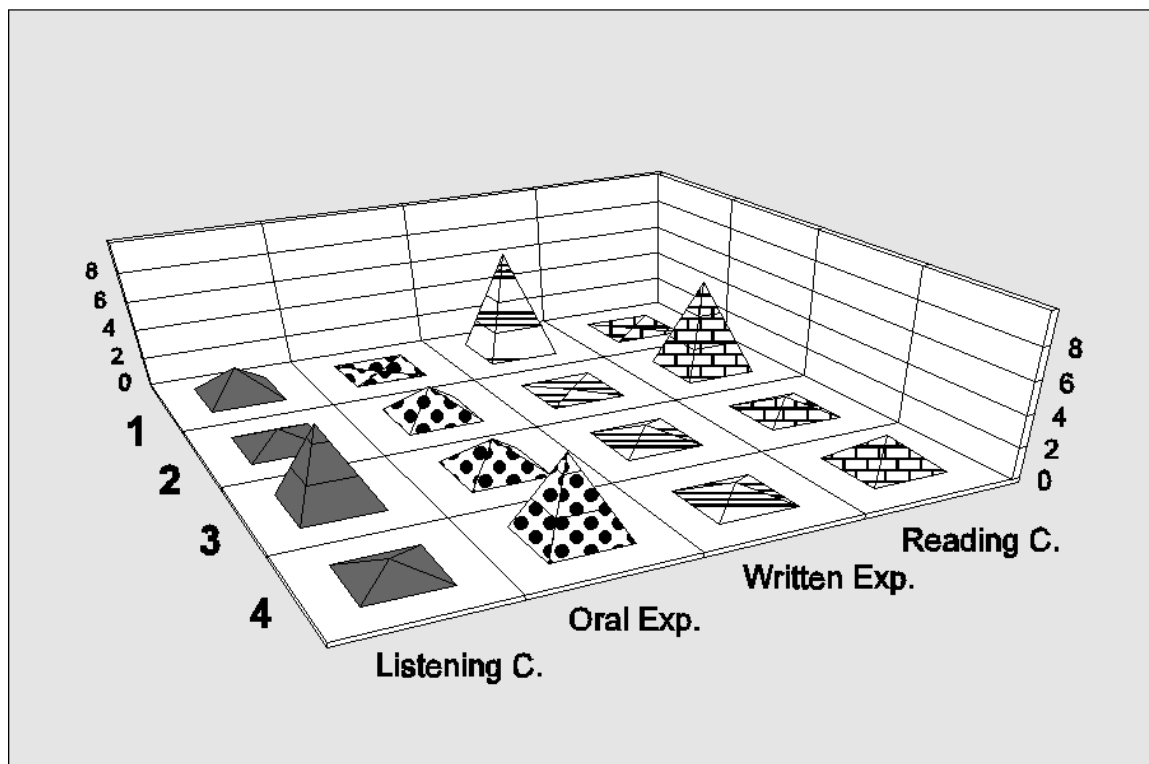


Figure 19: Skills needing reinforcement according to former post-graduates.

Question 15: Students here have to indicate which activity (ies) is (are) appropriate for their studies, among the different activities pertaining to the four skills: listening comprehension (A), written expression (B), oral expression (C), and reading

comprehension (D). At the end of each set of activities, there is an open question so that students can add any other activity not mentioned in the question, and needed for their studies. The results are presented in, respectively, tables 32A, 32B, 32C, and 32D.

Total	Listening comprehension (Skill A)			
	Activity (a)	Activity (b)	Activity (c)	Activity (d)
	05	09	08	02

Table 32A : The different activities as indicated by the former post-graduates, according to their priority and appropriateness for their studies .

The activity ‘understanding subject-related conversations’ (b), has been chosen as being very appropriate to the studies of speciality by 9 FPs, followed by ‘understanding general interest conversations’ (c) with 8 FPs then, comes (a) which stands for ‘the comprehension of lectures in English’ with 5 FPs, and finally, by (d) related to ‘understanding T.V. programmes’ with 2 FPs.

Institute	Written expression (Skill B)		
	Activity (a)	Activity (b)	Activity (c)
Total	09	08	06

Table 32B : The different activities chosen by the former post-graduates for their appropriateness for their studies .

Under skill (B), which is written expression, ‘writing subject-related reports and articles’, (activity a), has been indicated as being appropriate to studies of speciality by 9 FPs, followed by ‘note taking during lectures and conferences’ (b) with 8 FPs, then by ‘writing letters, filling forms’ (c) with 6 FPs.

Oral expression (Skill C)

	Activity (a)	Activity (b)	Activity (c)
Total	05	09	09

Table 32C : The different activities chosen by the former post-graduates according to their priority and appropriateness for their studies.

Under oral expression, both ‘taking part in subject-related conversations’ (b), and ‘presenting an oral report’ (c) have been designed for their appropriateness to studies of speciality by the 9 FPs, followed by ‘participating in general conversations’ (a) with 5 FPs.

	Reading comprehension (Skill D)	
	Activity (a)	Activity (b)
	Total	09

Table 32D : The activities (under skill D) former post-graduates indicated, as being appropriate for their studies.

Concerning reading comprehension (D), ‘reading subject-related literature’ (a) was chosen for its appropriateness by the 9 FPs, and ‘reading general literature’ (b), follows with 4 FPs. As for the open questions which come at the end of each set of activities, nobody answered them .

The following chart illustrates the results of the four tables which represent question 15.

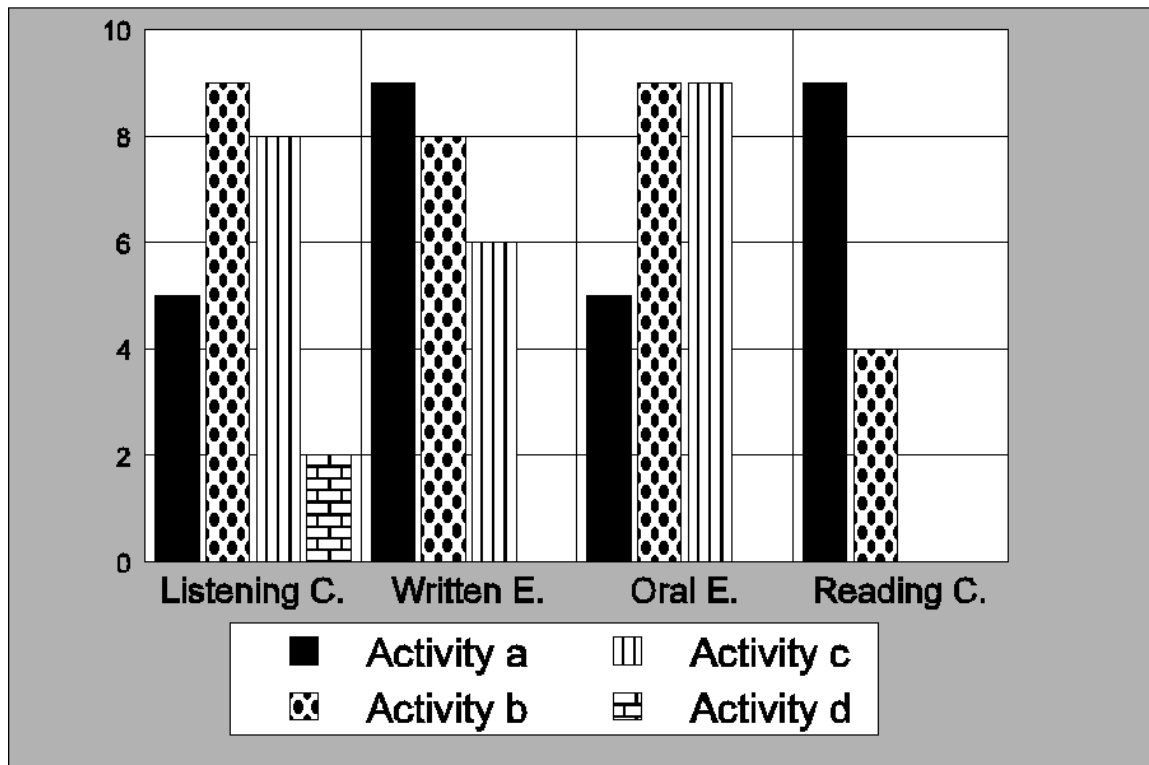


Figure 20: The different activities chosen by the former post-graduates.

Question 16, investigates whether the amount of instruction in English is sufficient, and if not, students should suggest the number of hours of instruction they would like to have in question 17 .

Total	Question 16		Question 17		
	Yes	No	2 to 4 hours	4 to 6 hours	6 to 8 hours
	01	08	01	04	04

Table 33 : Questions 16 and 17, about the amount of instruction in English .

8 FPs out of 9 agree that the present amount of instruction is insufficient.

As for the amount of instruction is concerned, 4 FPs suggested an amount varying between 4 to 6 hours, while other 4 FPs suggested an amount varying between 6 to 8 hours. Only 1 FP however, suggested an amount of instruction of 2 to 4 hours.

Question 18: investigates whether students have any suggestions concerning the course of English, to put forward.

Most of the FPs insisted on practising more writing, on developing their pronunciation, and wished also to be trained to speak intelligibly.

3.5- The presentation of the teachers' questionnaires:

Questionnaires were distributed to thirty teachers, who are in charge of the module of English for the different specialities. Among them, there are not only language teachers but also subject-matter teachers who teach at the same time the module of English. They are presented in table 34. As there are more than one teacher for the same speciality, at different levels, they are given numbers, like biology 1, biology 2, etc....

The methods of data analysis are the same as those used for data analysis of the students' questionnaire (i.e., nominal data, ordinal data...)

3.6 -Data Analysis of the teachers' questionnaires

Questions 1 to 4

Question 1	Question 2		Question 3			Question 4		
	F	M	1	2	3	1	2	3
Subject taught (in appendix A)								
Total	19	11	21	08	01	24	06	00

Table 34 : About the teachers' profile : institute (1), sex (2), age (3), and their position (4), i.e., either part-time, full-time, or associate teachers.

There are 19 females, and 11 males.

The number of teachers who fall in the class of age 25-34 is 21 ; whereas the other 8 teachers fall in the second class of age i. e, 35-44.

The average age of the teachers therefore, is 32,26. However, one teacher falls within the class of age 45 and more; so there is no need to calculate it.

There are 24 part time teachers, and 6 full time teachers.

Questions 5 to 8:

Discipline taught (in appendix A).	Question 5	Question 6		Question 7		Question 8		
		YES	NO	YES	NO	1	2	3
	'Licence' teach.	00	18	18	00	18	00	01
	'Licence' trans.	00	07	07	00	07	00	01
	Magister.	01	01	02	00	01	00	00
	Phd.	03	00	03	00	02	02	00

Table 35 : It is about the teachers' background like: their degrees (question 5), the place where the degrees were obtained, in an English speaking country or not (question 6), the use of the English language or not (question 7), and the kind of activity in which English is used, as in reading, publications, or in research (question 8).

Among the 30 teachers, 2 have got a Magister , 3 have got a Phd , 7 hold a 'licence' in translation, whereas the 18 other teachers hold a 'licence' in teaching the English language. Only two language teachers are enrolled in a research, for the completion of a Magister thesis.

One of them is the respondent 'Math 1'. He holds a 'licence' in translation, and is preparing a Magister thesis in the same field, while the respondent 'PG1' (myself) holds a 'licence' in English language teaching, and is preparing a Magister thesis in linguistics. However, the respondent 'chemistry 2' holds a Magister in chemistry (in Algeria), whereas the informant 'chemistry 3' holds a PhD in chemistry (in UK). As for the informant from 'civil engineering', he holds a master in civil Engineering (in UK), while from 'mechanical engineering', the informant holds a PhD. Finally, the informant from 'industrial chemistry' holds a PhD in industrial chemistry (in USA).

Most of the teachers use English only when teaching (the open question), or in reading. The informants 'PG1' (myself), and 'Math 1' use English in their research; while the respondent 'Phd I Ch' uses English in his subject-matter publications. All of these details are given in table A.35, in appendix A.

Questions 9 and 10: are about the teaching experience of the teachers. Question 9 concerns the number of teaching years either in their subject of specialism, in teaching English, or in both modules. As for question 10, it is related to the year of study of the learners being taught.

Table 36: It cannot be reduced, and presented here since totals cannot be done for such answers. The table figures therefore in appendix A (A.36).

The results of the table however, show that 18 out of 30 teachers have got less than 4 years of teaching experience. Moreover, 9 teachers have in fact less than one year of teaching experience; some have been teaching for only 1 or 2 months when the questionnaires have been distributed, but for the sake of uniformity, they were asked to write '1 year'. Indeed, some teachers leave in the mid of the academic year, and are therefore replaced .

Besides, there are even those who teach to different classes at the same time (like the informants computer sciences 4, and Maths 1, in A.36) to meet their timetable of six hours, because of their position as part-time teachers.

Question 11 : About the references of the books used by teachers.

The different books cited by the teachers are :

The New Cambridge English Course, by M. Swain & C. Walter

The structure of Technical English by A.J. Herbert.

Kernel Three by R. O'Neil & A. C. MC Lean.

Beginning Scientific English by D. E. Royds-Irmak.

'Nucleus' General Science by Martine Bates, Tony-Dudly Evans

The linguaphone Intermediate English Course.

English for Computing by P.CH. Brow.

Bac Revision Ed. Chihab.

First Course in Technical English by L. Beardwood.

L'Anglais par la litterature by S. Berland Delpine.

New Concept in English by L.G. Alexander.

English For Science and Technology by R. Alexander

Academic English by L.D. Rossi and M. Gasser.

Basic Grammar in use by R. Murphy.

Different texts related to different specialities like chemical engineering, biology or, geology, are borrowed from colleagues or taken from magazines (the references have not been cited by teachers).

Questions 12, and 13: are about the kind of texts the teachers work on (question 12), and whether subject courses as well as exercises constitute the basis for the course of English (question 13).

Total	Question 12			Question 13	
	General	General Sc.	Technical	Yes	No
	11	20	12	05	25

Table 37 : It is about the kind of texts taught, i.e. whether they are general interest, general science, or technical texts (question 12), and about the use or not of the course of speciality as a basis of the course of English (question 13).

According to this table, 11 teachers use general interest texts, 20 use general science texts, and 12 teachers use technical texts. In fact, only subject-matter teachers use highly technical texts, or rather terminology, as confirmed through question 13 intended to make it clear to teachers the distinction between general science and technical English. As a result for the latter question, the confirmation came with 5 positive answers, corresponding to the total of subject-matter teachers who take charge of the English module at the USTHB, and answered by ‘yes’ as to the use the course of speciality as a basis for the course of English (question 13). The following chart illustrates the results of question 12.

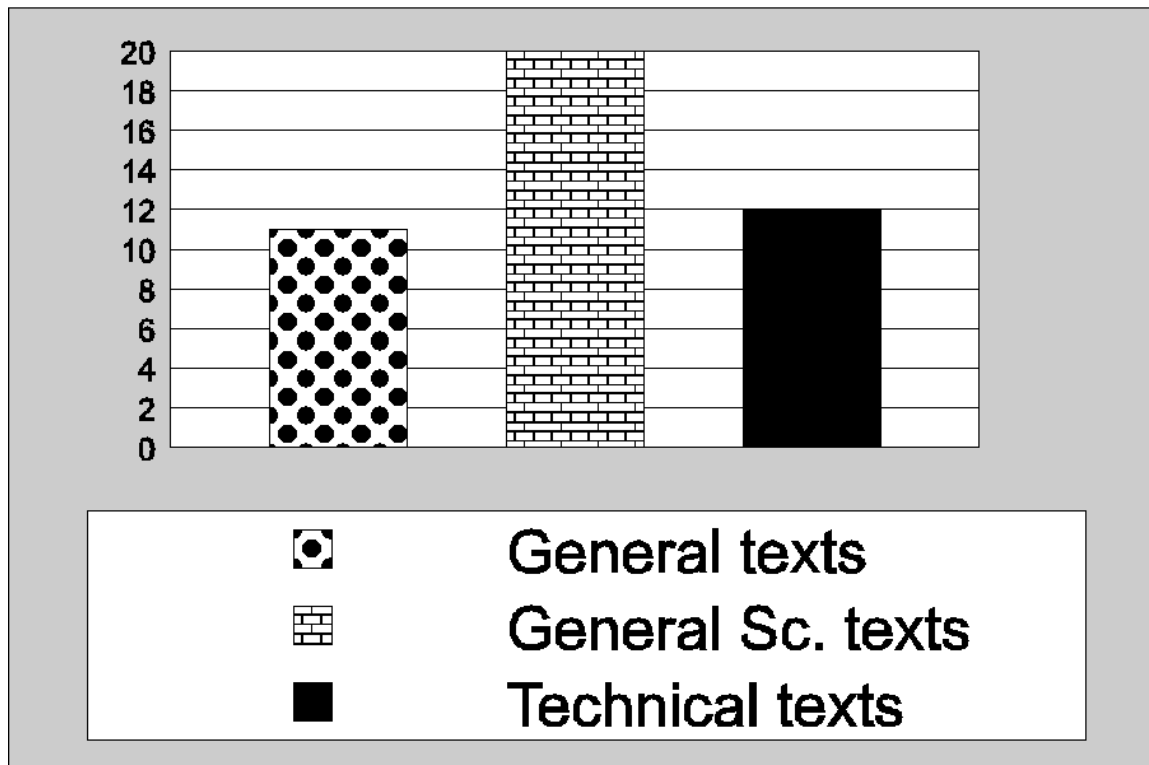


Figure 21: The type of texts taught during the course of English.

Question 14: It is about the aspects of language (represented in tables 38A, 38B) which are taught during the course of English, and their ranking from 1 to 5 following the priority they are assigned, number 1 representing the highest priority.

	Oral Exp.					Written Exp.				
	1	2	3	4	5	1	2	3	4	5
Total	02	03	05	05	15	00	07	12	08	03

Table 38A : It is about the priority assigned to oral expression, and written expression during the course of English, according to the different teachers.

Total	Reading Comp.					Listening Comp.					Grammar				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
18	07	01	04	00	01	01	07	09	12	09	12	05	03	01	

Table 38B : It is about the priority assigned to reading comprehension, listening comprehension, and grammar, according to the teachers.

According to tables 38A, 38B, based on the teachers' answers, the skill which is assigned the highest priority (number 1) during the course of English, is reading comprehension by 18 teachers. It is followed by grammar attributed by 9 teachers, then oral expression with 2 teachers, and finally by listening comprehension with 1 teacher, while no teacher allocated this highest priority to written expression.

The second level of priority however, was first attributed to grammar by 12 teachers, then to reading comprehension by 7 teachers, followed by written expression by 7 teachers, oral expression comes with 3 teachers, and finally listening comprehension follows, with 1 teacher

The third degree of priority was assigned to written expression by 12 teachers, then to listening comprehension by 7 teachers, followed by oral expression by 5 teachers, grammar by 5 teachers, and finally, reading comprehension by 1 teacher .

The fourth degree of priority was attributed to listening comprehension by 9 teachers, then to written expression by 8 teachers, oral expression comes with 5 teachers, reading comprehension with 4 teachers, and finally grammar with 3 teachers.

The fifth degree of priority was allocated to oral expression by 15 teachers, followed by listening comprehension by 11 teachers, then written expression with 3 teachers, and grammar comes with 1 teacher, while no teacher has assigned this degree to reading comprehension.

We may thus notice how, in the absence of programmes, the teachers' lack of training, and the non-identification of the students' needs, some teachers' points of view diverge as to the priority assigned to the different skills. This may be a possible explanation for the confused state of English teaching at the USTHB. Further comments will be given when considering the present learning/teaching situation and the students' needs in the light of the needs analysis results in 4.3.

The following chart illustrates question 14.

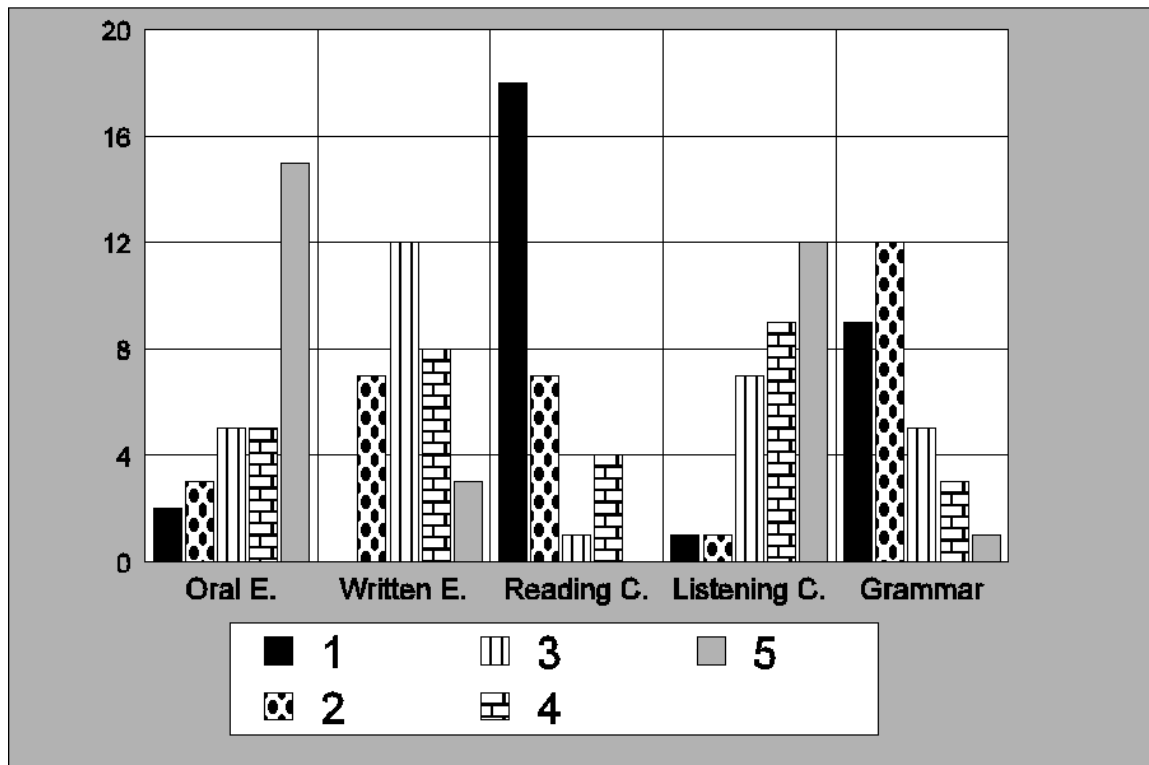


Figure 22: The priority assigned to the different skills by teachers.

Question 15. It is about some vocabulary, and grammar components which are taught during the course of English. The results are presented in tables 39A, and 39B.

	Vocabulary		General ideas
	Single words	Compounds	
Total	23	14	21

Table 39A : It is about the components focused on during the course of English, like vocabulary (a), and general ideas (c) put in this table for the sake of practicality.

	Grammar components				
	Connectives	Passive Voice.	Quantity expression.	Comparison	Word Formation
	Total	14	22	11	12

Table 39B : It is about the grammar components taught during the course of English according to teachers.

Concerning vocabulary, according to table 39A, 23 teachers out of 30 focus on single words, while only 14 focus on compounds (some teachers however focus on both components). 21 teachers out of 30 however, also work general ideas, that is, emphasising skimming.

Among the grammar components which are the most practised according to table 39B, figures the passive voice with 22 teachers, followed by the connectives with 14 teachers, then comparisons with 12 teachers, quantity expressions come with 11 teachers, and finally, word formation with only 7 out of 30 teachers.

As for the open question concerning the teaching of any component not mentioned in the question, tenses, terminology, and translation have been cited.

The following chart illustrates question 15.

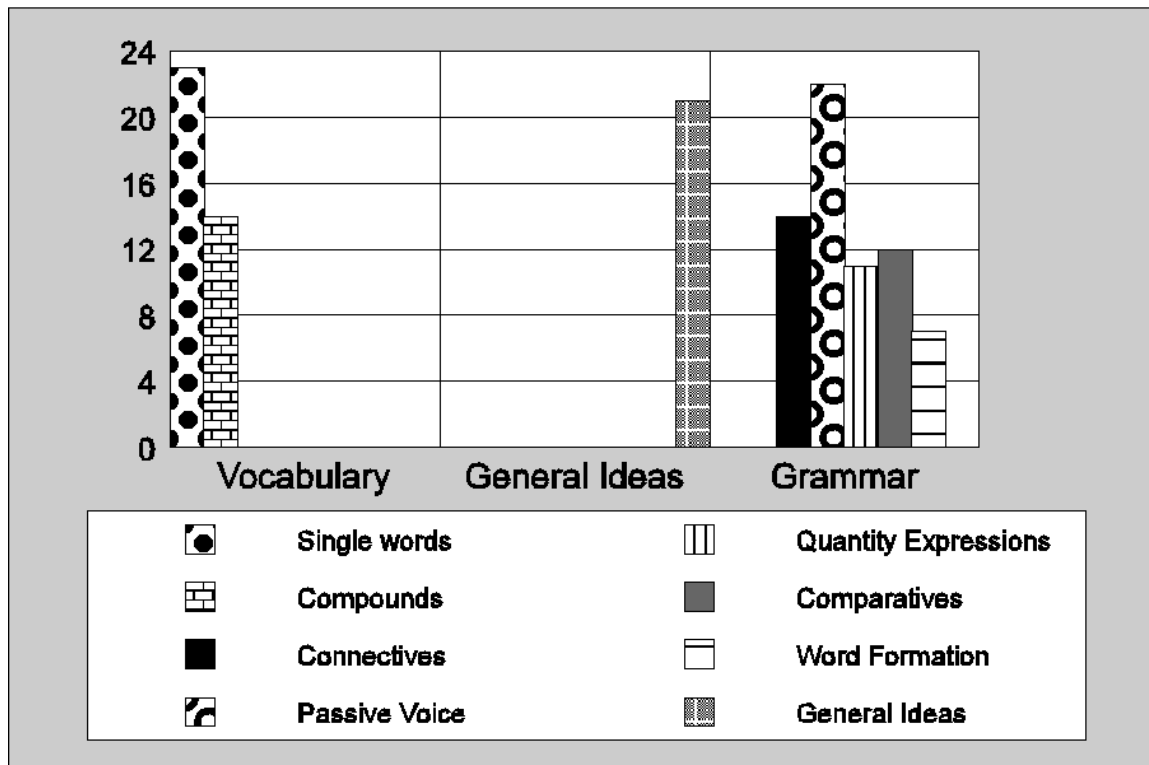


Figure 23: The different components taught during the course of English.

Question 16 : is about the sub-skills which are practised during the course of English, according to the teachers. These sub-skills are: Reading and explaining the vocabulary in texts (a), reading and studying relations between the different parts of the text (b), reading and working oral summaries (c); reading and writing summaries (d), grammar exercises (e); writing sentences (f); writing paragraphs (g); preparing presentations (h), any other activity practised but not mentioned in the question (i) and here, teachers have to provide it as an open answer .

	Sub-skills							
	a	b	c	d	e	f	g	h
Total	27	02	23	04	19	20	04	04

Table 40 : The sub-skills which are practised during the course of English, according to the teachers.

The sub-skill which is the most practised according to this table is ‘a’ (reading and explaining the vocabulary) with 27 teachers, followed by ‘c’ (reading and working oral summaries) with 23 teachers, ‘f’ (writing sentences) with 20 teachers, then ‘e’ (grammar exercises) with 19 teachers. The sub-skill ‘d’ (reading and writing summaries), ‘g’ (writing paragraphs), ‘h’ (preparing presentations) come with an equal number of 4 teachers, and finally ‘b’ (reading and studying relations between the different parts of the text) follow with 2 teachers.

As for the open question ‘i’ (any other sub-skill not mentioned in the questionnaire but practised by the teachers) nobody answered it

The following chart illustrates question 16.

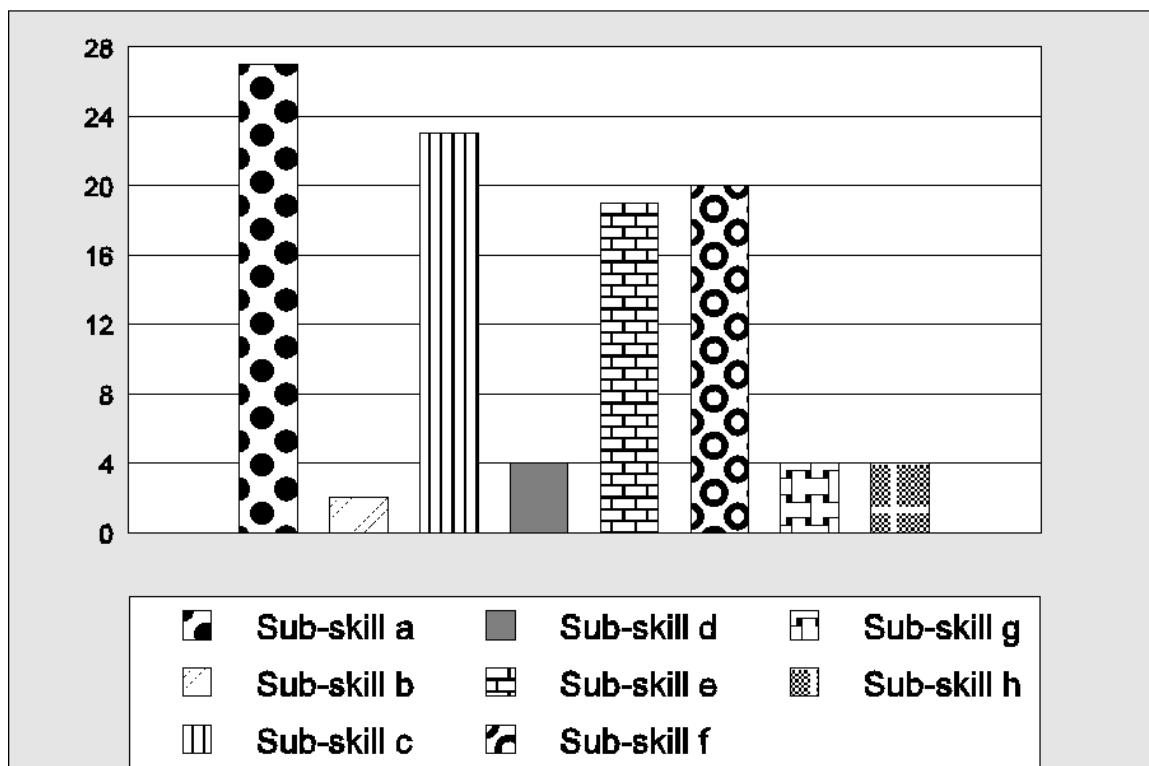


Figure 24: The different sub-skills practised during the course of English.

Questions 17, and 18. The mode(s) of course evaluation like exams (question 17), and the most appropriate register of English for the students, according to the teachers (question 18) are presented in the table below.

Total	17 :Course evaluation		18 :The appropriate register of English		
	a	b	a	b	c
	28	06	01	08	21

Table 41 : It is about the kind of evaluation of the course of English practised by teachers (question 17), and the register of English considered by teachers as appropriate for their students (question 18).

Concerning the evaluation of the course of English (question 17), most of the teachers, 28 out of 30 use exams, 6 teachers use papers prepared by their students and some teachers use both of them. Nobody however, has answered the open question.

As for the register of English considered as appropriate for the students, 21 out of 30 teachers opt for both general interest, and subject-related English, 8 teachers however, prefer subject-related English, while only 1 teacher opt for general interest English.

Question 19. About the skills which students need to reinforce, with regard to their studies, according to teachers.

Total	Listening				Oral expression				Written expression				Reading Comp.			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	05	03	13	09	01	09	07	13	03	16	06	05	21	02	04	03

Table 42 : It is about the different skills ranked by the teachers according to their importance for their students, and the necessity of being reinforced.

The skill which needs to be reinforced the most according to this table based on the teachers' ranking is reading comprehension assigned the highest priority (number 1) by 21 teachers, followed by listening comprehension with 5 teachers, written expression with 3 teachers, and oral expression with 1 teacher.

The second degree of priority (number 2) has been attributed to written expression by 16 teachers, then to oral expression by 9 teachers, listening comprehension with 3 teachers, and finally comes reading comprehension with 2 teachers.

The third degree of priority (number 3) has been allocated to listening comprehension by 13 teachers, then to oral expression by 7 teachers, followed by written expression with 6 teachers, and finally by reading comprehension with 4 teachers.

The fourth degree (number 4) of priority has been assigned to oral expression by 13 teachers, then to listening comprehension by 9 teachers, followed by written expression with 5 teachers, and finally with reading comprehension with 3 teachers.

The following chart illustrates question 19.

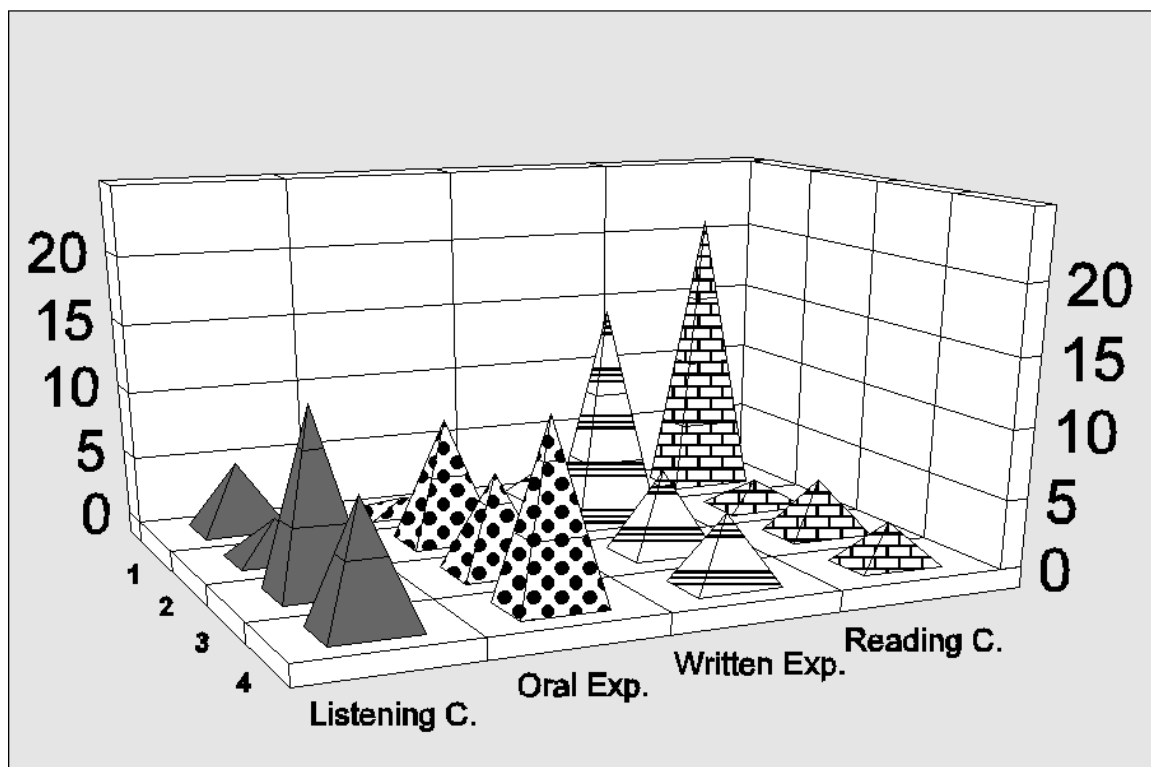


Figure 25: Skills needing reinforcement, according to teachers.

Question 20. The activities which are the most appropriate to the students, according to the teachers. The results are presented in tables 43A, 43B, 43C, and 43D.

	Listening comprehension (Skill A)			
	Activity a	Activity b	Activity c	Activity d
	Total	25	30	17

Table 43A : The activities which are the most appropriate to the students, according to the teachers.

Concerning the skill 'A' which is listening comprehension, activity 'b' (understand subject-related conversations in English) seems to be the most appropriate to the students' needs, according to the 30 teachers, followed by activity 'a' (understand a course in English) with 25 out of 30 teachers. Then, comes activity 'c' (understand general interest conversations in English) with 17 teachers, and activity 'd' (understand T.V. programmes, films, songs) with only 1 teacher.

As for the open question, nobody answered it.

	Written expression (Skill B)		
	Activity a	Activity b	Activity c
	Total	29	21

Table 43B.

As for skill 'B' which is written expression, activity 'a' (write subject-related reports) is the most appropriate to the students according to 29 out of 30 teachers, while sub-skill 'b' (take notes) follows with 21 teachers, and activity 'c' (write letters, fill forms) with 10 teachers.

Concerning the open question however, translation has been cited as being practised and no other answer has been given.

Total	Oral expression (Skill C)		
	Activity a	Activity b	Activity c
	20	30	14

Table 43C.

Under skill ‘C’ which is oral expression, the 30 teachers opt for activity ‘b’ (take part in subject-related conversations) as being the most appropriate for the students, while 20 teachers rather (or, and) choose activity ‘a’ (take part in general interest conversations), and activity ‘c’ (present an oral report) with 14 teachers only.

Nobody answered the open question.

Total	Reading comprehension (Skill D)	
	Activity a	Activity b
	30	15

Table 43D.

As far as skill ‘D’ that is reading comprehension, the 30 teachers agree that activity ‘a’ (reading subject-related literature) is the most appropriate to the students, and 15 teachers also choose activity ‘b’ as being the most appropriate.

As for the open question, nobody answered it.

The following chart illustrates question 20.

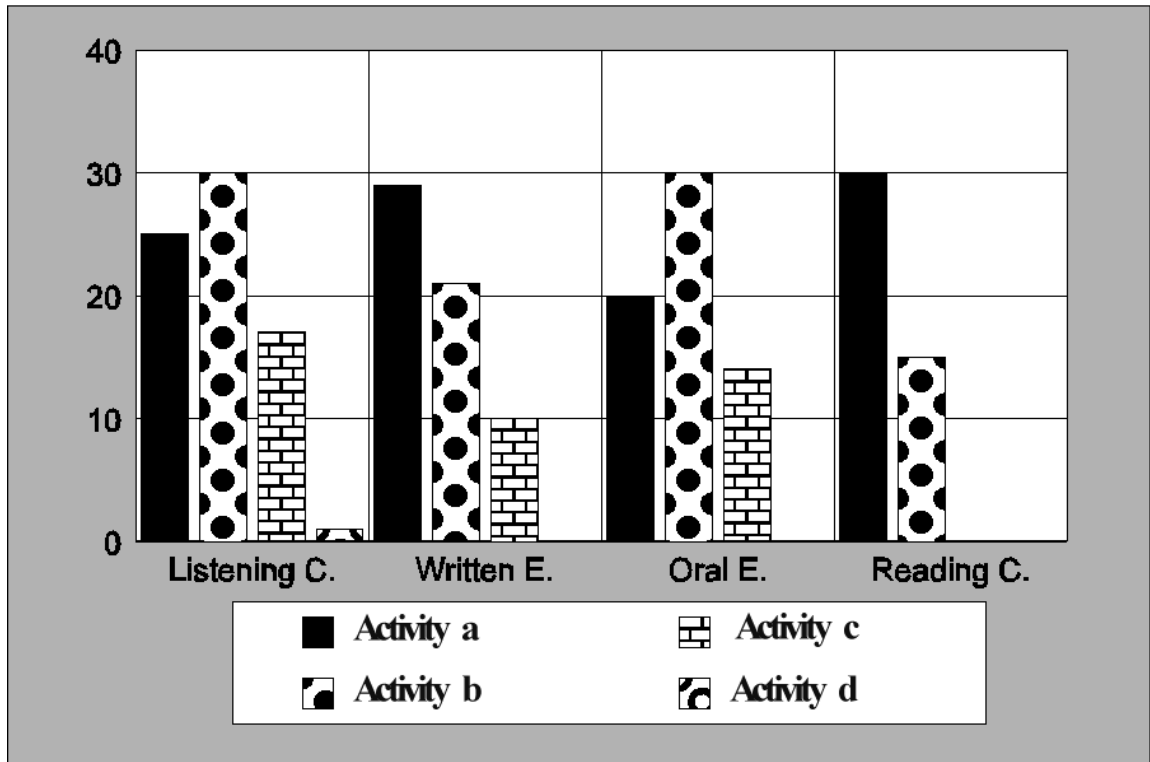


Figure 26: The most appropriate activities, according to teachers.

Questions 21, 22: The former is about whether teachers know about any objectives concerning the module of English, and coming from the Ministry of Higher Education and Scientific Research; while the latter (question 22) is about stating those objectives in case they exist.

	Question 21		Question 22
	Yes	No	
Total	06	24	terminology

Table 44 : It is about whether teachers know or not about any official objectives(21). Then, if it is the case, they should describe them (22).

According to this table, only 6 teachers know about the existence of official objectives. Among them, 5 are subject-matter teachers, and 1 is a language teacher (myself) who carried an investigation about this question (21).

The objectives consist in fact in teaching terminology (question 22).

Question 23 concerns the teachers' own objectives.

Some teachers have not answered at all this open question. Some have only expressed the wish of becoming full time teachers. Some others however, described the following objectives :

- Design a programme related to the students' subject of specialism.
- Improve the students' ability of translating into or, from English.
- Improve the students' ability of speaking intelligibly.
- prepare students to understand their scientific literature.
- Teach terminology.
- Increase the students' motivation to learn English

Question 24 is to know whether the suggestions cited above are the results of one own' s reflection (a) or, the result of a mutual consultation with other teachers (b).

Except for 3 teachers who answered that their suggestions are the result of a mutual consultation with some colleagues, all the other teachers answered that the suggestions are based on their own reflection. Nobody however, answered the open question.

Questions 25, 26: They concern the amount of instruction in English, whether it is sufficient or not (question 25), and the suggestion of an amount of instruction (question 26).

	Question 25		Question 26		
	Yes	No	2 to 4 hours	4 to 6 hours	6 to 8 hours
Total	01	28	22	06	01

Table 45 : whether the amount of instruction in English is sufficient or not (25), and the suggestion of an amount of instruction (26).

Almost all the teachers i.e. 28 out of 30 think that the time devoted to the module of English is insufficient (question 25).

Therefore, 22 teachers suggest sessions of 2 to 4 hours, 6 teachers suggest more than that, i.e. 4 to 6 hours, while only 1 teacher suggest 6 to 8 hours (question 26) .

Questions 27, 28: They are about the existence or not of any collaboration between language and subject-matter teachers (question 27), and whether such a collaboration is wished or not (question 28).

Total	Question 27		Question 28	
	Yes	No	Yes	No
	00	30	27	03

Table 46 : It is about co-operation between English language teachers, and subject-matter teachers; whether this co-operation exists or not (question 27), and whether both types of teachers agree on it (question 28).

The 30 teachers confirm that no co-operation exists between language and subject-matter teachers (question 27).

27 teachers are for this co-operation, while only 3 teachers out of 30 are against (question 28).

Question 29 is an invitation of the teachers who agree on this co-operation, to give their suggestions concerning it.

Among the suggestions given by the teachers who agree on this co-operation between language and subject-matter teachers, we might cite :

-Subject-matter teachers could select some subject-related courses to be taught in English.

-Subject-matter teachers could provide subject-matter related materials (articles, chapters from books).

-The basics of the English language should be introduced at the first year of undergraduate studies, then, only terminology should be taught following the level of the students in their subject of specialism. Thus, students should be able to write reports on their laboratory experiments by the third year, and present exposes at the fourth year. Therefore, subject-matter teachers could help language teachers specialise in some disciplines.

Question 30 is an open one. It allows teachers to make any suggestion concerning the course of English in general.

The suggestions made by some teachers are :

- The elaboration of programmes according to the different levels and specialities.
- To organise co-ordination meetings between language and subject-matter teachers.
- There should be more co-operation between the different institutes and the language centre, between the language teachers and the different institutes, and between the different teachers themselves to better organise the course of English, as well as to facilitate the work of the different teachers, particularly the part-time teachers who are always changing.
- To form the language teachers in the different specialities.
- To enrich the centre's library with technical books in English.
- To give more importance to the module of English in the general level.
- To acquire a more sophisticated audio-visual equipment.

Chapter 4: Discussion of results

- 4.1- The comparison and discussion of results
- 4.2- The summary of the suggestions made by the teachers and students
- 4.3 -The present learning/teaching situation and the students' needs in the light of the needs analysis results:
- 4.4- Suggestions and recommendations

4.1- The comparison and discussion of results:

Questions will be dealt with separately, and each time global results of the students' questionnaires (under-graduates, post-graduates, former post-graduates), and the corresponding results from the teachers' questionnaires will be compared and commented upon. Questions will be dealt with in a chronological order from the students' questionnaires which concern a more important number of informants whereas the corresponding questions from the teachers' questionnaires do not necessarily follow a chronological order. Questions 1 to 5 concern the profile and background of the informants and are therefore, not included in this comparison or discussion.

Question 6 from the students' questionnaires deals with the skills in which students meet difficulties. The results for the three categories of informants are presented in the following table :

Question 6	Oral E.	written E.	Reading C.	Listening C.
Under-graduates	87	73	67	82
Post-graduates	51	40	39	49
Former post-gr.	09	08	07	09
Total	147	121	113	140

Table 47 : Global results of question 6 from the students' questionnaires.

According to these results, all the students seem to share the same difficulties. It must be reminded that there are one hundred (100) under-graduates, fifty four (54) post-graduates, and nine (09) former post-graduates, which gives a total of one hundred sixty three (163) students.

Put in the context of the present learning situation, the results seem logical . Indeed, compared to the other skills, reading comprehension is the skill which is the most 'demystified', that is to say, the most practised by the students. This does not mean that it is the most practised during the course of English, but that students are generally, directly or indirectly, forced to read English written documents for their presentations (directly), or to get more knowledge about a certain topic which interests them

(indirectly). In this way, students manage to work out this skill using dictionaries most of the time. However, they do not have this experience with the other skills like oral expression, listening comprehension, or even written expression unless if they practise it during the course of English, the latter being a foreign language, so not practised outside the classroom. Therefore, students meet relatively more difficulties in oral expression, listening comprehension, or written expression than in reading comprehension. The word ‘relatively’ has been used because one should not forget that reading comprehension is the students’ target activity and should therefore be evaluated for itself (as such), more than in relation to the other skills which do not constitute an urgent need for the students.

We may also explain this difficulty students meet in the above skills by the fact that the latter are rarely, or never worked during the course of English as shown in the results of questions 9 (from the students’ questionnaires), and 14 (from the teachers’ questionnaires) which deal with the different skills of language that are practised during the course, as already seen in the results of their respective questionnaires.

Now that the students’ needs, or more precisely lacks in terms of skills are known, it is interesting to know about the teachers’ perceived needs, through question 19 whereby they are asked to rank the skills according to the students’ needs, the results are as illustrated in the following table :

Question 19	Listening C.				Oral E.				Written E.				Reading C.			
Ranking	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Total	05	03	13	09	01	09	07	13	03	16	06	05	21	02	04	03

Table 48: Question 19 about the skills which should be reinforced according to teachers.

According to the teachers’ ranking of the different skills which should be reinforced following the students’ needs, the highest priority was attributed to reading comprehension by 21 teachers out of 30. The second degree of priority has been assigned to written expression by 16 teachers, the third degree to listening comprehension with 13 teachers, then the fourth degree has been allocated to oral expression by 13 teachers.

The teachers' evaluation of the students' needs or their perceived needs then (see needs analysis, chapter I) in relation to the four skills seems to be the opposite of the students' own evaluation of their perceived weaknesses. This shows that teachers in general, not all of them, as opposed to their students, are aware of the students' real or urgent needs called the 'necessities' (see chapter I) by which are meant the target needs, or the needs related to their studies. Within this line of thought, we notice that the results of question 19 (seen above) correlate with the results of question 14 from the teachers' questionnaires, about the skills the teachers focus on during the course of English. In other words, the teachers' objectives for the course of English globally match their perceived needs, or what they think the students need to learn. The target activity of the students indeed, is to read specialised documents in English for their research work. 'Writing' follows in second position of priority as it can be needed for instance at work, after under-graduate studies, or at the postgraduate level when they may write papers in their different specialities. 'Listening' comes at the third place and it may be needed also at work, but particularly when post-graduates have to attend conferences where English is used. At the same time, they may present papers in English and for this, they need to practise oral expression which was ranked in the fourth position.

Concerning question 7 from the students' questionnaire, it deals with some aspects of vocabulary and grammar which cause difficulties to students in reading comprehension. The results for the three categories of students concerning their difficulties with some aspects of vocabulary and grammar are as illustrated in the table below :

Question 7	Vocabulary		Grammar components				
	Single words	Com-pounds	Connec-tives	Passive V.	Quantity E.	compari-sons	Word formation
Under-Gr.	67	73	63	61	48	57	70
Post-Gr.	32	46	44	40	29	37	46
Former P.G.	06	09	09	07	03	05	09
Total	105	128	116	108	80	99	125

Table 49 : Question 7 about some aspects of vocabulary and grammar which cause difficulties to students in reading comprehension.

In the light of this table, it can be noted that the majority of the students meet the same difficulties with the same vocabulary and grammar components in reading comprehension.

Concerning the aspects of vocabulary, 128 out of 163 students meet difficulties with compounds; while with grammar components word formation causes difficulty to the majority of students which is 125, then connectives with 116 students, followed by the passive voice with 108, comparisons with 99 students, and finally, quantity expressions come with 80 students out of 163.

As to the open question (c) about any other component not mentioned in the question, and which causes problems to students in reading comprehension, some students put forward the use of tenses, others pronouns, sentence formation, and idiomatic expressions.

The same vocabulary and grammar components were suggested to teachers who were asked in question 15 to indicate the aspects they work out while teaching reading. Another aspect however was also proposed to teachers, and it consists in general ideas (c) or skimming, for it may be the only aspect which is worked out during the reading sessions. The results are as illustrated in the table below :

Question 15	Vocabulary		Grammar components					General ideas
	Singular Words	Com- pounds	Connec- tives	Passive V.	Quantity E.	Compa -rison	Word Formation	
Total number of Teachers	23	14	14	22	11	12	07	21

Table 50 : Question 15 from the teachers' questionnaire.

According to this table, it appears that the majority of teachers i.e., 23 out of 30 rather work single words than compounds which cause difficulties to the majority of students in reading comprehension. Concerning grammar components, 22 teachers out of 30 work out the passive voice which comes in the third position in the list of difficulties students meet in reading comprehension, 14 teachers focus on connectives which come in the second position of difficulty met by the students, 12 teachers deal with

comparisons placed in the fourth position of the students' difficulty in reading comprehension, 11 teachers insist on quantity expression which constitute the last difficulty of students, and finally, only 7 out of 30 teachers work out word formation which represents the students' difficulty number one in reading comprehension. This weak practice of word formation may explain the students' great difficulty with this component. More emphasis should also be put on connectives, to explain their various meanings and the different relations they establish in the text.

However, 21 teachers deal with general ideas (like distinguishing the main ideas from the secondary ones, the major details from the minor ones, etc...) in the reading sessions, which should be encouraged to train students in top down reading, and avoid serial reading where students stop at each single word they do not understand, therefore, reading slowly. Moreover, according to the results of question 12 (from the students' questionnaires) students, in general, try to understand each single word and also make a frequent check of dictionaries (as it resulted from part 'c' of the same question), which hinders reading. The results are shown in the results of question 12 (in the corresponding tables, in the presentation of the results of the under-graduates, the post-graduates, and the former post-graduates).

As to the open question (d) about any component worked out during the reading sessions and not mentioned in the question, some teachers mentioned tenses, terminology, and the use of translation.

As for question 8 about the register of English studied by the students the year the questionnaires were handed out (i.e. general 'GE', general science 'GSE, or technical English 'TE'), and question 9 about the different aspects of language practised during the course of English (like grammar 'A', oral expression 'B', listening 'C', Writing 'D', and reading 'E') the results of both questions concerning the three categories of students who answered the questions are represented in the following table :

The informants	The register of English			The different aspects of language				
	GE	GSE	TE	A	B	C	D	E
Under-gr.	37	35	21	55	28	13	28	44
Post-gr.	36	45	00	46	24	45	40	50
Former P.gr .	05	02	04	08	05	04	05	04
Total	78	82	25	109	57	62	73	98

Table 51 : Questions 8 and 9, about the register of English studied as well as the different aspects of language practised during the course of English according to students.

According to this table, 82 out of 163 students (the three categories), study general science English, general English comes in second position with 78 students, and technical English in third position with 25 students.

As for the different aspects of language practised during the course of English, grammar comes in first position with 109 students, then reading with 98 students, writing with 73 students, listening with 62 students, and finally, oral expression with 57 out of 163 students.

The corresponding questions from the teachers' questionnaire to be matched with the questions described above (from the student' questionnaire) are questions 12, 13, 14. Question 13 however, is to distinguish again between language teachers, and subject-matter teachers who really use technical English.

The register of English		
General English	General Science English	Technical English
11	20	12

Table 52 : Questions 12 from the teachers' questionnaire, about the register of English taught during the course.

According to this table, 20 teachers out of 30 use general science English, a result which correlates with that given by the students. However, there is a discrepancy between the students' answers, and the teachers' concerning the other two registers of English. As a

matter of fact, and as opposed to the students' results (above), 12 teachers answer that they teach technical English, whereas only 11 teachers opt for general English. The unexpected high number of teachers who work out technical English may be explained by the fact that some language teachers, due probably to experience, may have acquired a sufficient knowledge and an appropriate terminology to teach technical English because there are only 5 subject-matter teachers who take in charge the course of English (see results of question 5 about the nature of diploma obtained by teachers, from the results of the teachers' questionnaire). However, unless they acquired it in another institution, and this is again an argument to be rejected since the big majority of the teachers are freshly graduated, it is more likely that some teachers confused general science and technical English. For this reason, question 13 was put to make such a distinction clear, and its results consisted in five teachers who answered by 'yes' as to the use of subject-related courses and exercises as the basis of the course of English. This result corresponds to the number of subject-matter teachers; therefore, we may say that, in fact, only the latter teach highly technical English, notably terminology.

Question 14 however, is a ranking question, to show which skill is most practised by the teachers. The ranking goes from 1 to 5, and for the sake of practicality, only the totals corresponding to each skill of language will figure in the following table :

Oral exp.					Written exp.					Reading C.					Listening C.					Grammar				
1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0
2	3	5	5	5	0	7	2	8	3	8	7	1	4	0	1	1	7	9	2	9	2	5	3	1

Table 53 : About question 14 from the teachers' questionnaire.

According to this table, the skill which is most practised and attributed the highest degree of priority is reading comprehension according to 18 teachers, which shows that teachers, in general, are aware of the students' target needs. However, the students rather put forward grammar as being the most practised skill during the course of English. In the second position grammar was attributed the second degree of priority by 12 teachers. It can therefore be said, that there is some correlation between the teachers' and the students' results concerning the practice of reading and grammar during the

course of English, if we consider that both these two skills were put forward by them. The third degree was assigned to written expression by 12 teachers, and this correlates with the results given by the students (see the table above).

'Listening comprehension' however, was allocated the fourth position as in the students' results, by 9 teachers, and the last degree of priority was attributed to oral expression by 15 teachers, which correlates with the students' answers. These two last skills do not indeed constitute the students' prior needs or necessities (see the different definitions in chapter I), and this shows the teachers' awareness of the students' prior needs. However, they should not for such be neglected, because as it is said in Hutchinson and Waters (1987: p. 75):

"If an gets into the brain through a number of different pathways- by hearing, reading, writing and speaking- that image is likely to be a richer image than if it gets in through only one pathway- the image... will have more connections in the network."

It should also be noted that the skill which should be more practised during the course of English is writing, because after reading which the students need for their different research statements, students need (according to my long teaching experience in this institution and the different informal interviews, discussions I have had with teachers, students from different levels) to write abstracts for their theses, or may write reports as well as publications in English during or after their post-graduate studies, or even at work, in certain fields where English is used.

Question 10 in the students' questionnaire concerns the different sub-skills practised during the course of English, and as the question was put in the same way for both students (question 10) and teachers (question 16), the global results of all the informants will be included in the same table. These sub-skills are: Reading and explaining the vocabulary in texts (a), reading and studying relations between the different parts of the text (b), reading and working oral summaries (c); reading and writing summaries (d), grammar exercises (e); writing sentences (f); writing paragraphs (g); preparing presentations (h), any other activity practised but not mentioned in the question (i) and here, informants have to provide it as an open answer .

Informants	Sub-skills							
	a	b	c	d	e	f	g	h
Under-gr.	42	00	08	00	65	40	20	00
Post-gr.	40	32	41	41	42	44	36	38
Former P.gr.	09	00	00	03	05	08	01	00
Total of students	91	32	49	44	112	92	57	38
Teachers	27	02	23	04	19	20	04	04

Table 54 : Questions 10 (from the students’ questionnaire), and 16 (from the teachers’ questionnaire) about the different sub-skills practised during the course of English.

This table shows that ‘grammar exercises’ (e) come in the first position as the most practised during the course of English according to 112 students out of 163, while it comes in the fourth place in the teachers’ results with only 19 teachers, and this is far from any correlation.

92 students however, place ‘writing sentences’ (f) in the second position whereas, teachers put this sub-skill in the third place with 20 teachers, which does not cause a great discrepancy.

‘Reading and explaining the vocabulary’ (a) takes the third place with 91 students, and the first place according to 27 teachers which makes a great difference in the given results (the table above). Perhaps the students’ awareness of their poor vocabulary makes them think that they do not work it sufficiently, and it may be more useful to think of various efficient ways of building up the students’ vocabulary, like using it in different exercises, mainly in writing.

‘Writing paragraphs’ (g) is put in the fourth place by 57 students, and in the fifth position by 4 teachers, and here again, there is not a great gap between the two sets of results. However, considering the position it was assigned by teachers, we can say that writing is somewhat neglected and should be practised more frequently as it seems to be the best way of working the students’ grammar as well as vocabulary. Moreover, correcting students’ writing is a very efficient way of discovering their various language weaknesses. We should not forget either, that at the post-graduate level, or later, writing abstracts or articles for publication must be done in English.

As for 'reading and making oral summaries' (c), it comes in the fifth position with 49 students, and in the second one with 23 teachers, which shows a great discrepancy between these results. Here again, this skill may not be worked sufficiently since students meet a lot of difficulties in oral expression (see the results of question 6 from the students' questionnaires). In addition to this, the classroom is in general, for most students, the only place where English is spoken as it is a foreign language. Therefore, it will be useful to create opportunities for oral communication, like summarising orally the ideas of texts during the reading sessions, or asking students to react to texts by expressing orally their opinions. In other words, if it is not possible to devote entire sessions for oral expression, then students should be incited to do some exercises orally during the reading or listening sessions, and ask questions in English.

'Reading and writing summaries' (d) however, follows in the sixth position with 44 students, and in the fifth place with 4 teachers, representing therefore a slight difference between the given results. Here, what has been said about the importance of writing when discussing the results of sub-skill 'g' is relevant.

'Preparing presentations' (h) takes the sixth position with 38 students, and the fifth one with 4 teachers, hence the difference is not really significant. What we can say in this case, is that when the students' linguistic (degree of language mastery) and topical (subject-matter) levels do not allow them to prepare presentations at the under-graduate stage, this sub-skill (h) then, may be postponed for the post-graduate course, to prepare them for their research.

Finally, 'reading and studying relations between the different parts of a text' (b) seems to be the least practised sub-skill since 32 students put it in the last position, like teachers i.e. only 2 teachers practise it, and here both results correlate. This sub-skill should be given more importance as it deals with discourse, so it may help students in recognising its different clues like reference as well as inference, linking sentences and ideas, understanding relations within the sentence, and therefore advance easily throughout the comprehension of a text.

As to the open question (i) no teacher answered it, while some students mentioned the practice of some exercises related to phonetics, and the use of translation.

What can be said accordingly, is that the students' and teachers' results do not always correlate in the above table, and there is not a great difference either, except concerning sub-skill 'a', 'c', and 'e'. These slight differences may be explained by the fact that students are not always able to describe the nature of the activity they undertake in the

classroom as opposed to teachers, or (and) that students think of their lacks when answering. Nevertheless, some sub-skills seem to be relegated to the last positions by teachers, like sub-skill ‘b’, in the time where they ought to be intensively practised for the helpful training they give students in reading. Indeed, in addition to what has been said above in relation to this skill, students need to be trained in reading skills like skimming first, then scanning, for most of the students, for instance in question 12, answered that while reading, they try first to understand all the difficult words, then the global meaning (see results of question 12 of the under-graduates, the post-graduates, and the former post-graduates).

Question 11 from the students’ questionnaire has no equivalent in the teachers’ questionnaire. It is about the reasons which lie behind the learning of English. According to the results, all the categories of students agree that learning English is necessary to their studies (see tables : 6 from the under-graduates’, the post-graduates’, and the former post-graduates’ results).

From the teachers’ questionnaire, question 17 has no equivalent in the students’ questionnaire. It deals with the way of assessment adopted by teachers, which according to the latter, consists mainly in written exams.

Students were asked in question 13 about the register of English they would like to study, and the same question was addressed to teachers (question 18) but in a different way, that is about the appropriate register of English to be taught to students. The students’ want therefore, and their need, according to their teachers, will be presented in the same table for a better comparison.

Informants	The register of English		
	General interest English	Subject-related English	Both registers of English
Under-gr.	13	15	72
Post-gr.	00	12	42
Former post-gr.	00	04	05
Total	13	31	119
Teachers	01	08	21

Table 55 : The results of question 13 from the students’ questionnaire, and question 18 from the teachers’ questionnaire.

As illustrated in the above table, the majority of students (119 out of 163) prefer the study of both registers of English, and this result correlates with that given by teachers (21 out of 30) when asked about the appropriate register of English for their students. We may therefore, state that the students' felt need here and the teachers' perceived need converge. As a matter of fact, according to the multiple informal interviews I had with the various teachers and students from different levels, and on the basis of the feedback I used to have in my classes, it appears that technical English is not the only register of English which is advocated. Other registers of English are also thought to be very useful for a better mastery of the English language, and for a greater awareness of the different types of discourse students may be confronted with. However, we may explain the language teachers' point of view by the fact that, in the absence of any training or specialisation in the scientific or technical disciplines they teach, they have no other choice than opting for general interest, or general science English.

In question 14 from the students' questionnaire, and question 19 from the teachers' questionnaire the four skills, listening comprehension (a), oral expression (b), written expression (c), and reading comprehension (d), were ranked according to their priority for the students' needs, both by the students and the teachers. The results of all the informants are grouped in the following table :

INFORMANTS	Listening C.				Oral Exp .				Written Exp.				Reading C.			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Under-gr.	28	29	23	20	23	25	29	23	14	31	24	31	35	15	24	26
Post-gr.	19	12	13	10	08	16	14	16	05	19	14	16	22	07	13	12
Former P.-gr.	02	01	05	01	00	02	02	05	07	00	01	01	00	06	01	02
Total	49	42	41	31	31	43	45	44	26	50	39	48	57	28	38	40
Teachers	05	03	13	09	01	09	07	13	03	16	06	05	21	02	04	03

Table 56 : The ranking of the four skills by students (question 14), and teachers (question 19) according to the students' needs.

In the light of this table, it appears that reading comprehension has been attributed the first position with 57 students, followed by writing in the second position with 50

students. As for the third position it is assigned to oral expression with 45 students, then writing expression is again ascribed the fourth place with 48 students, and this shows that not all students can distinguish clearly all their target needs. For instance the under-graduates attribute oral expression the third place, and written expression both the second (31) as well as the fourth degrees. The post-graduates put written expression and oral expression equally in the third, then the fourth positions; while the former post-graduates make a clear distinction between the different skills, with written expression in the first place, reading comprehension in the second place, listening comprehension in the third place, and finally, oral expression in the fourth place. This may be explained by the fact that former post-graduates finished their studies, and as most of them became teachers, they use English for writing publications and reading for further research; hence their ranking of writing and reading in the first and second positions. Globally, there is a certain convergence between the different students as for the first and second priorities attributed to reading comprehension and written expression.

As far as teachers are concerned, the results of this question (19) related to the students' needs in terms of skills or the teachers' perceived needs, have already been confronted above with the results of question 6 from the students' questionnaire about their difficulties or lacks in terms of the four skills. From that confrontation we found out how the teachers' perceived needs and the students' lacks (according to students) diverge. In the teachers' results then concerning question 19, to be recalled, reading comprehension also comes in the first position with 21 teachers, and written expression in the second position with 16 teachers, which, when compared with the results of the question in hand then (question 14 from the students' questions), reveals a perfect correlation of all the informants' results (teachers and students) about the two mentioned skills. It may be deduced accordingly, that in general, both the teachers' perceived needs and the students' felt needs in terms of skills, put forward reading and writing in the first two positions. It is true that (according to the investigation I carried out, mainly the outcomes of the discussions and informal interviews with the different students) the students' target needs or 'necessities' (see chapter I, needs analysis) consist in reading for research and writing reports, abstracts, or publications. Question 15 from the students' questionnaire, and question 20 from the teachers' questionnaire however, concern the different sub-skills among which, both students and teachers have to indicate the appropriate ones to the students' target needs or necessities. Each skill

and its different corresponding sub-skills will be illustrated in a separate table with the results of all the informants.

Informants	Skill A			
	Sub-skill a	Sub-skill b	Sub-skill c	Sub-skill d
Under-gr.	44	71	66	43
Post-gr.	28	54	43	26
Former P.gr.	05	09	08	02
Total	77	134	117	71
Teachers	25	30	17	01

Table 57A : Question 15 from the students’ questionnaire, and question 20 from the teachers’ questionnaire.

Concerning skill ‘A’ that is ‘listening comprehension’, there is a correlation between the students’ results, and the teachers’ as for sub- skill ‘b’ (with 134 students, and 30 teachers) which is ‘to understand subject- related conversations’ coming in the first place, and also about sub-skill ‘d’ (with 71 students, and 1 teacher) about ‘to understand T.V. programmes’ placed in the last position.

As for sub-skill ‘a’ which is ‘to understand a course in English’, teachers placed it in the second place (25 out of 30), whereas students put it in the third position (77 out of 163), which reveals a discrepancy between the two results. The same thing may be said of sub-skill ‘c’ which is ‘general interest conversations in English’ coming in the second position in the students’ results (with 117 students), and in the third one in the teachers’ results (with 17 teachers).

Informants	Skill B		
	Sub-skill a	Sub-skill c	Sub-skill d
Under-gr.	68	43	42
Post-gr.	53	41	32
Former P.-gr.	09	08	06
Total	130	92	80
Teachers	29	21	10

Table 57B : Questions 15 (students’) and 20 (teachers’).

As far as skill ‘B’ or ‘written expression’ is concerned, there is a perfect correlation between the teachers’ and the students’ results. Indeed, sub-skill ‘a’ or ‘write subject-related reports’ comes in the first place with 130 students, and 29 teachers ; sub-skill ‘b’ that is ‘take notes’ comes in the second position with 92 students, and 21 teachers ; while sub-skill ‘c’ or write letters, fill forms, follows with 80 students, and 10 teachers.

Informants	Skill C		
	Sub-skill a	Sub-skill b	Sub-skill c
Under-gr.	60	78	65
Post-gr.	41	53	38
Former P.-gr.	05	09	09
Total	106	140	112
Teachers	20	30	14

Table 57C: Questions 15 (students’) and 20 (teachers’).

About skill ‘C’ which is ‘oral expression’, opinions converge as far as sub-skill ‘b’ (take part in subject-related conversations) is concerned with 140 students, and 30 teachers. As for sub-skill ‘a’ (take part in general interest conversations) 20 teachers placed it in the second place, while 106 students put it in the third position. However, sub-skill ‘c’ (present an oral report), it comes in the second place in the students’ results (112 students), and teachers (14 teachers) put it in the third position.

Informants	Skill D	
	Sub-skill a	Sub-skill b
Under-gr.	63	37
Post-gr.	54	38
Former P.gr.	09	04
Total	126	79
Teachers	30	15

Table 57D : Questions 15 (students’) and 20 (teachers’).

Concerning skill ‘D’ that is ‘reading comprehension’, results correlate about sub-skill ‘a’ (reading subject-related literature) with 126 students, and 30 teachers, as well as about sub-skill ‘b’ (read general interest literature) with 79 teachers for 15 teachers. Question 16 from the students’ questionnaire, and question 25 from the teachers’ questionnaire are about whether the amount of instruction in English is sufficient or not. Within the same line of thought, question 17 from the students’ questionnaire, and question 26 from the teachers’ questionnaire are about the amount of instruction in English the informants would like to have. The results of both questions therefore, will be grouped in the same table which is the following :

Informants	Questions 16 and 25		questions 17 and 26		
	Yes	No	2-4	4-6	6-8
Under-gr.	05	92	62	17	00
Post-gr.	01	53	32	21	00
Former P.gr.	01	08	01	04	04
Total	07	153	95	42	04
Teachers	01	28	22	06	01

Table 58 : About the amount of instruction in English : whether it is sufficient or not (questions 16, 25), and the suggested amount according to students and teachers (questions 17, 26).

Both the results given by the students (153 out of 163), and the teachers (28 out of 30) correlate about the insufficiency of the amount of instruction in English. The results of the informants (95 students, 22 teachers) also correlate as for the suggested amount of instruction in English which they would like to increase from 2 to 4 hours per week, the present amount in this institution (to be recalled) being one hour and a half for the different levels and disciplines.

The last question from the students’ questionnaire is question 18, to be matched with question 30 (from the teachers’). It is an open question to elicit free suggestions about the course of English. To point-up the different suggestions, they will be dealt with separately, in the following section.

4.2- Summary of the suggestions made by the teachers and students:

The suggestions made by our informants can be summed up as follows:

Under-graduates :

In general, they insisted on grammar as the best tool which will help them construct correct sentences, but they want it to be learned differently and not only through rules most of which according to them, they already know, but they are unable to write or speak correctly . As for vocabulary, students think that it can be worked and developed progressively. However, they would like also to devote more time to listening activities in language laboratories than what they have done so far. They would like to practise more speaking and communication during the course of English as well. In addition to this, students think that the introduction of the video will help them understand better, and improve their English. Finally, learning in small groups is favoured by the students.

Post-graduates :

Most of them suggest the study of general English at the undergraduate level, and subject-related English at the post-graduate level where the different specialities should be taught separately, to organise seminars, presentations, and to study subject-related articles in the different specialities. They insist on reinforcing listening, through the study of the basics of phonetics, through dictation, and listening to songs. This will also allow them to develop their oral expression which should as well be reinforced, according to them. They also suggest the introduction of the video in teaching, which they think, will improve their learning of English. They expressed the wish to be taught some notions related to writing for research. Finally, they suggest to give more importance to the module of English in the general level, and to deliver at the end of each course, certificates of aptitude to increase their motivation.

Former post-graduates :

Most of the FPs insisted on practising more writing, on developing their pronunciation and oral skills.

According to the different suggestions made by the students, common propositions are put forward like the wish to practise more listening, and speaking, as well as the introduction of the video in teaching to encourage communication. There are however, some suggestions which are specific to each category of students. For instance, the under-graduates insist on studying grammar as being one of the means which will allow them to master the basics of the English structures. However, its teaching should be more functional and focus rather on use. Most students therefore, reject the study of grammar as being presently taught to them (through rules and isolated items), as revealed in the results of the inquiry, and discussions held with them, or in the different writings they provide when asked about their opinion about the course of English at the beginning or the end of the academic year. The post-graduates however, advocate the practise of presentations through their subject-related literature and asked for some notions in writing for research. As for the former post-graduates, they insist on writing. This seems to me quite understandable since the under-graduates need indeed to master the basics of the English language; the post-graduates who want to be taught some notions in writing for research, and to work their subject-related literature through presentations, need in effect, such a preparation for their research work; as for the former post-graduates, most of whom are preparing their doctorate degree, they need writing and speaking, to write reports, to present them, as well as to attend conferences.

Teachers :

Some of the teachers' suggestions consist in the elaboration of programmes according to the different levels and specialities, in the organisation of co-ordination meetings between language and subject-matter teachers, as well as in reinforcing co-operation between the different institutes and the language centre, the language teachers and the different institutes, and among the different teachers themselves (language and subject-matter teachers). They also expressed the wish to be formed in the different specialities they teach, and to give more importance to the

module of English in the general average. Teachers suggested to enrich the centre's library with books, mainly the technical ones, and to acquire a more sophisticated audio-visual equipment.

Questions 21 to 24 from the teachers' questionnaire are about the objectives of the English course, in order to know whether or not teachers are aware of the existence of any official objectives for the course of English. The results show that only 6 out of 30 teachers know about it (question 21, table 11), and it is in fact only one official objective which consists in teaching terminology (question 22), according to the 6 teachers who answered by yes in question 21.

As for the open question (23) concerning the teachers' own objectives for this course, only some teachers answered them. These are their suggestions :

- Design a programme related to the students' subject.
- To improve the students' ability to translate into/from English.
- To improve the students' ability to speak.
- To prepare students to understand their scientific literature.
- To teach terminology.
- Increase the students' motivation to learn English.

The following questions to be reported below, are taken from the teachers' questionnaire, and have no equivalents in the students' questionnaire.

Concerning question (24) about whether the objectives given above are the result of one's own reflection (a), or the result of mutual consultation with other teachers (b), only 3 teachers answered 'yes' for (b), whereas the others rather answered positively (a). Nobody however, answered the open question which aimed at eliciting additional information.

Question (27) from the teachers' questionnaire is about the existence or not of any co-operation between subject-matter and language teachers, and all the latter answered no, whereas for question (28) on whether teachers accept this co-operation, only 3 expressed their disagreement. Within the same line of thought, question 29, is an open one, and an invitation for teachers to suggest the different ways for such a co-operation, which elicited the following propositions :

-Subject-matter teachers could select some courses to be the basis of the course of English.

-Subject-matter teachers could provide subject-matter related materials.

-The basics of the English language should be introduced during the first year of undergraduate studies, then, only terminology should be taught following the level of the students in their subject. Thus, students should be able to write reports on their laboratory experiments by the third year, and present exposés in the fourth year.

4.3- The present learning/teaching situation and the students' needs in the light of the data analysis results

According to the information obtained from the questionnaires, the informal interviews and discussions held with teachers and students alike, different factors have been identified, and seem to lie behind the absence of progress, as well as that feeling of repetitiveness in the course of English (stated also in the rationale) across the different levels. These factors, which are related to the teaching/learning situation, presumably impede the effectiveness of learning as we shall see in the following points:

➤ *The absence of official programmes:* there are no programmes, nor guidelines for the teaching of English except for the reference made to the English module, in an official document at the university level, which relates it to teaching terminology. Teachers have therefore to improvise courses for the different disciplines they teach, hence the necessity to write an official programme to guide them, in order to follow the evolution of the students' learning.

➤ *The availability of a very limited amount of reading materials,* the titles of which are provided by teachers in the questionnaires' results, and also in the introduction. These materials are used indeed as the basis of the course each year, to the extent that sometimes the same texts are given the same year to third, or fourth year students by new teachers. Most of them are general English (The New Cambridge English Course, 1990), some are general science ('Nucleus' General Science, 1981), and old versions where we find for instance 'punched cards' as being devices for inputting information, which no longer exist (in English For Computer Science, 1984).

Consequently, it is necessary to enrich the library of our centre of intensive teaching of languages (at the USTHB) with appropriate, updated materials related to the students' different scientific and technical disciplines. It will also be interesting to think of adapting texts from the highly technical as well as scientific documents existing at the university resource centre. There are seven language laboratories as mentioned in the introduction, but they are not used by students before the fourth year, and their teachers

must first schedule themselves. They are subject to frequent breakdowns, in addition to the scarcity of listening materials (cassettes related to The New Cambridge English Course and The Linguaphone Intermediate English Course).

➤ *Most language teachers are inexperienced, untrained, and generally unmotivated* (for different reasons) part-time teachers who leave sometimes in the mid of the academic year, to be replaced by new ones. In the absence of programmes and appropriate materials they meet difficulties in preparing and organising courses because they lack experience in teaching EFL, particularly ESP, and cannot cope easily with specialised terminology. The latter is mastered by some subject-matter teachers who teach English at the same time, but do not have however, the necessary linguistic knowledge about the language, being trained in scientific and technical disciplines. They rely therefore, on teaching terminology and on translating it into French or Arabic, which is not sufficient to train students in the different discourses as well as the related linguistic features necessary for the comprehension and tackling of the scientific/technical discourse.

Therefore, teachers need training in foreign language teaching in general, have some knowledge in ESP theory, syllabus design, and immerse themselves with the discourse as well as terminology of one or more scientific/technical specialities. This will increase their motivation and reinforce their confidence.

➤ *Furthermore, there is a lack of variety in the practise of language activities in the course of English at the USTHB.* This may be due to the absence of previous training and experience in teaching of the majority of teachers. Thus, the focus is on grammar rules and exercises through isolated items, while reading is limited to texts from the available materials, some terminology building, in addition to the practice of comprehension questions. Even listening is rarely practised, for the important number of students and the difficulty to schedule them in the seven language laboratories. Taking into consideration the last constraint, listening should at least be practised regularly for all fourth year students, since the latter ranked this skill in the second position concerning its difficulty (see results of question 6), and expressed the wish to devote more time to this activity (the students' suggestions, chapter 4).

There is indeed no variety in the type of the texts studied, nor in the activities practised (as shown in the results of questions 10 and 16, respectively from the students' and the teachers' questionnaires). In effect, as revealed in the results of the questionnaires (results of question 9, from the students' questionnaire) and the informal interviews as

well as discussions held with the different informants, grammar is the language component which is practised the most during the course of English. Yet, students still meet difficulties probably because grammar is taught in a discreet way, through isolated items, and is not directed towards those features inherent to scientific discourse, like the clustering of some grammatical features around some rhetorical functions (e.g. the passive-stative to the rhetoric of description, in Chapter 1). The teaching of grammar should then be related to such aspects that interfere with reading comprehension, and should raise from context, to be meaningful.

➤ *Reading is not exploited to equip students with the appropriate skills and strategies that will help them to cope with the requirements of their target readings.* Although it is frequently practised (results of question 14 from the teachers questionnaires), students still have problems in reading their specialised literature, and over use dictionaries. This hinders their reading, and makes them slow readers, while they should be prepared to read rapidly to meet the demands of their target activity. The latter consists in reading important amounts of subject-related documents and synthesising. According to the results of the investigation (questions 16 and 10 from, respectively the teachers', then the students' questionnaires), the reading activities practised during the course of English at the USTHB in general, consist in reading, explaining vocabulary, mainly single words, and giving the main ideas. There are no activities to work at the relationships within discourse, and no particular concern with compounds which make reading comprehension difficult (results of question 7, from the students' questionnaires).

Therefore, reading should be worked through different tasks and activities, like pre-reading to stimulate the students' background knowledge, referencing through different cohesive devices like pronouns, as well as transitional words. We may also cite other activities like inferencing through context, by identifying word-formation forms, and the organisation of the scientific/technical discourse. The latter's inherent features like those identified by Trimble (1992), particularly noun-compounds and sub-technical vocabulary should be the focus of the reading activities.

➤ *The students' absenteeism during the course of English is common to the different levels.* They do not seem to progress in their learning of English. Moreover, when asked about their opinion during informal discussions or/ and are encouraged to write their suggestions about the course of English at the beginning of the academic year, they generally mention their negative attitude, in addition to the lack of motivation towards a

'repetitive' course, through which they 'review the same grammatical rules' each year. They also express the wish (as shown in their suggestions) to understand English, read without frequent use of dictionaries, and speak intelligibly.

➤ *English is not uniformly introduced at the same year for the different disciplines.* Although it generally starts from the third year for the majority of specialities, there are still some discrepancies concerning its introduction across the different institutes, as shown in the introduction. In the Computer Science discipline for instance, this module is integrated in the syllabus from the second year; whereas Mechanical Engineering students have to wait until the fifth year to study English. Consequently, the latter have more deficiencies in English (see the test results). No reason was given as an explanation to this situation except that it has always been scheduled in this way (according to the university's administrative staff), and nobody raised this point before the present investigation. A uniform attitude towards this problem should therefore be seriously considered.

➤ *The insufficiency of the amount of time devoted to English study* It consists of only one hour and a half per week, and this constitutes a major constraint for two reasons: 1) the students already suffer from the loss of their knowledge of English because of the break in their learning of it between the secondary school and the third year (generally, the year of the introduction of the English module in their curricular). 2) in addition to this loss of knowledge, the learners' general command of English is low, being a foreign language and not practised outside the classroom. Therefore, more time is needed to help them reach the basic level of English necessary to start training in the various required skills and activities.

➤ *All the teaching/learning parameters prevailing in our institution and discussed in this section seem to hinder students' progress.* In effect, the lack and inappropriateness of reading as well as listening materials, lack of teachers' training, absence of programmes, lack of variety of activities related to students' subject-matter, are indeed likely to make the learning of English in our institution repetitive as well as ineffective. The present course of English at the USTHB seems therefore, to fail in meeting the academic and target needs of the students. This breeds a feeling of boredom, a negative attitude towards the course of English, and, consequently, a lack of motivation of the students.

As it is known, motivation, attention, as well as perception and attitude are decisive factors in learning, as Marzano, quoted by Day and Bamford (1998: 21), puts it:

“Attitude and perception color our every experience. They are the filter through which all learning occurs.” Although it is difficult, if not impossible, to have any control over such factors particularly perception and attention, they should be catered for in any learning situation. Developing positive attitudes towards learning should be taken into consideration. Also, motivation may be increased by varying the activities, mainly those related to reading, even giving sometimes briefly, the cultural and/or historical context relevant to the text under study. This attracts the students’ curiosity and yields a considerable feedback from the learners (according to my teaching experience), especially when asked to express their reaction. Such reading situations also offer remarkable opportunities for oral expression which is the skill which causes the greatest difficulty to students (see results of question 6 from the students’ questionnaires), and which is the least practised skill according to teachers (see the results of question 14 from the teachers’ questionnaires). It is indeed a way of practising oral expression since students ask for it (see their suggestions), without devoting a whole session for that, particularly when there are time constraints. It is also easier for the students who will use the available vocabulary in the text to express their opinions either orally, or even in writing short dialogues if they work in pairs, or short paragraphs. Reading therefore, may be exploited for different pedagogical activities. Within this line of thought Hudson (1991: 85) encourages the instruction derived from reading tasks when he states that:

“...the instruction directed to grammar, vocabulary, and rhetorical structures arise from a need to process the text and carry out the comprehension task...when the points of instruction are derived from the reading tasks, instruction is more attentive to the process and strategies that the student must learn than to mastery of separable language products such as a particular rhetorical style or a particular grammatical structure.”

Such review of some grammatical structures in context seems then necessary at the under-graduate level, since there is generally, a loss of knowledge due to the break between the lycée or the secondary school, and the university before the introduction of English in our learners’ curricula. This may be a solution to bridge that gap, where instruction in English is totally absent. It may therefore be less boring for the students to learn and review the basic structures of English while dealing with the reading tasks, using the appropriate tenses when summarising the main idea of a text, or matching the appropriate pronouns with the corresponding words or expressions, in reference or

inference exercises related to the text being read, etc... The students indeed know sometimes the structures of some tenses for instance, but they do not always know how to use them in context. Moreover, they seem conscious of this problem, they ask therefore for grammar, but express their boredom (information yielded from discussions) with 'rules'. For this reason, the approach towards grammar should not be rules-focussed but meaning-focussed that is to say "contextualised" and "text-based-presented in a meaningful context beyond just a sentence..." as put by Keh, (1991: 17). Moreover, instruction in grammar may be designed according to the students' errors during corrections as stated again by Keh (ibid.,: 17-18): "...students' own errors provide the outline of the grammar syllabus."

Of course, some time should be devoted whenever possible, to listening, speaking when discussing a text, and writing as in summarising, or in the other different reading tasks as already mentioned. Simplified or adapted (see the different definitions in chapter 1), general science texts or what Trimble calls 'parallelism' (ibid.), may be more appropriate, as students are not yet proficient in their subject-matter learning. Moreover, such texts can be chosen for their appropriateness for the instruction intended to be taught, or they can be adapted for such purposes. At this level, even general interest texts may be interesting since they may lead to general vocabulary building and the development of different 'knowledge types' as in the extensive reading advocated by Day and Bamford who state (1998: 19) that foreign or second language readers "...need linguistic, world, and topical knowledge...".

Then, as students acquire more knowledge in their speciality or subject of specialism i.e., by the fourth, fifth year, their learning may be more task-based or directed towards problem-solving activities, and their reading materials more closely related to their subject-matter. In other words, texts may not be authentic since they may be adapted or written for pedagogical purposes (or, may be authentic according to what Day and Bamford call 'learner language literature' discussed in chapter1). This type of text may serve to illustrate some rhetorical examples inherent to scientific discourse, in order to be exploited for study during reading, like classifying, contrasting, comparing, or defining. Such materials are related to the students' different respective specialities. As far as activities are concerned however, we cited the example of problem-solving which: "...can be defined as pedagogical and language activities that are simulations of real socio-professional activities designed to develop the qualities required by the professions and to improve performance in English." Souillar, and Ken, (1990: 28)

Among such tasks based on authentic activities, we may mention describing an experiment in chemistry, or building a flowchart to calculate an employee's salary from a given set of data in computer science classes. Indeed, a programmer (see English for Computer Science by Brown and Mullen, 1984) formulates an algorithm (steps of instructions to solve a problem) which can be described either by a diagrammatic representation or block diagram, or by a sequence of precise sentences, i.e., a flowchart. Hence, students will not only be trained in some rhetorical functions (see 1.4) as 'comparing', 'contrasting', describing, but also in performing authentic tasks. In this way, students' creativity is also encouraged as stressed again by Souillar, and Ken, (ibid.) who state that:

“in fact, problem-solving, is an intellectual game that combines creativity with technical or scientific knowledge...it can also be closely connected with specialist subjects, since the students will try to apply their technical knowledge and therefore will need the appropriate language, be it the specialised vocabulary, the notions, or the functions of scientific discourse.”

Within this line of thought, particularly if more time is devoted to instruction in English in the students' curricula, texts may be thematically organised according to the students' subject-matter as in Hudson's (1991: 85) content comprehension approach where:

“...the thematic orientation of a content comprehension approach to reading instruction consciously facilitates the reconciliation of new with old information. A topic- or thematic – based curriculum helps to create more semantically robust background knowledge. The topical nature of material promotes the utilization of the reader's background knowledge in the comprehension process.”

Obviously, for this thematic organisation, the involvement of subject-matter teachers would be desirable. This offers an opportunity for a fruitful co-operation between language and subject-matter teachers, most of whom wish for (see the teachers' suggestions in 4.2, and the results of question 28 from the teachers' questionnaires).

Naturally, listening and oral expression should not be neglected, for a thorough understanding of the language.

At the post-graduate level however, students have a better mastery of their subject-matter, and are supposed to have studied English for two years, in general, at the under-graduate level, therefore having at least acquired the basics of English. More

choice is offered then as to the type of learning (way of teaching, type of activities, type of material etc...) to be opted for. It should not be forgotten however, to take into consideration the constraints and potential of the learning situation such as the teachers (their aptitude, experience, motivation), the material (its availability, its nature), the equipment (like language laboratories, video films...), as well as the students (having the same level or not, sharing the same speciality, or being mixed science groups). In the case of our institution, as classes are generally mixed science ones at this level (post-graduate), a common-core course may be thought of. It may be built around the students' deficiencies that may arise from different corrections, and from the 'individualisation' component of the course (to be developed below). They may as well be prepared for their future research with some study or research skills like note taking, quoting, how to organise information in report writing, and how to integrate quotations in the text, etc... . In reading, some grammatical forms and rhetorical features like those given by Trimble (already mentioned in chapter 1), present in scientific authentic or 'genuine' texts which are to be used at this level, should be reviewed or reinforced.

Along with this common-core course, individualisation (discussed in chapter 1) may also be appropriate at this level (post-graduation), like allowing students to bring their own scientific/technical literature which, in addition to its importance at this stage, may be a partial solution to the lack of materials at the centre's library. Students should therefore be encouraged to use documents related to their different fields of interest. They will be assisted by the teacher in their reading, and organising of specific assignments in the different specialities. While helping the students in their reading, the teacher may take notes of their different weaknesses and the problems they encounter. This will guide him towards the aspects of language to take into consideration and integrate into the common-core course, especially if the problems are common to most students. Here, it appears that it is not only terminology which is needed by students, as put in the official objective of the course in our institution. Moreover, only a language teacher can run such a course as she is aware of the different aspects of the language and can be formed in one speciality (or more) to immerse herself into its specific style and terminology. However, a co-operation with subject-matter teachers (as seen above) is desirable for a better organisation of the course of English, particularly when a thematic orientation of texts is needed. The teacher may as well take notes of the abilities/lacks of the student who will benefit from an individualised orientation and help, as suggested in extensive reading by Day and Bamford (1998: 43) who state that:

“Teachers, having observed students reading during the periods of sustained silent reading, report that they are more aware of each student’s strength and weaknesses as a reader, and are thus better able to give students individual guidance.”

Thus, it is always confirmed that reading is a good means of testing the student’s strength and deficiencies. It may direct, particularly through its related tasks, both the student and the teacher to those aspects of language which need review, or reinforcement. However, in addition to reading, writing and presenting orally their assignments, practising listening is important. It may involve different types of language, even general interest material, as most of the existing tapes at the centre’s library are about this type of language. All this will reinforce the students’ practise of English. It would also be very helpful to equip the centre with some multimedia equipment like the video which is a very useful pedagogical means, as well as a motivating source as pointed out by Bell (1998: 17) :

“Teachers need to invest time and energy in entertaining the participants by making use of multimedia sources to promote the books (e.g. video, audio, CD-ROM, film, etc...). In these ways, teachers can maintain student motivation to read and secure their full engagement in the enjoyment the program provides.”

This common-core course and individualised learning suggested through this work constitute an ultimate step in the follow up of the evolution of the students’ learning in our institution. Our learners’ deficiencies in the different aspects of language may be remedied for through the common lessons and the individualised orientation. At the same time, these students feel confident since they are working their own subject of interest. As they are preparing themselves for their research while studying (mainly through reading) English, which may be the language to be subsequently used for their occupational purposes, the students will gradually become independent readers and autonomous users of English. This is the aim of this research work (see the rationale of the research). However, this preparation of learners to this ultimate goal should be translated into goals and objectives, and this is the concern of the following part.

4.4- Suggestions and recommendations

4.4.1- Goals

As stated earlier, in an official document at the university level, the module of English is referred to as teaching terminology. There are no guidelines concerning the teaching or the materials. Each teacher has therefore to find her own way, looking for appropriate materials and improvising courses for the different existing disciplines.

Establishing goals and objectives provides an already appropriate and ‘coherent framework’ (Graves, 1996: 17) for the teacher to design and organise a course. The goal aimed at through this research work is to prepare students in our University of Sciences and Technology, from the introduction of English study in their curricula to its end, to become independent, self-confident readers of subject-related, English written documents, and autonomous users of this language.

This preparation of the students to that ultimate goal can therefore be seen through a continuum, with a special emphasis on developing and/ or reinforcing particular abilities. As a matter of fact, the term ‘goal’ according to Stern (1992), in Graves (1996: 17) suggests four types of goals:

- *Proficiency goals:* developing a general competency in the four skills (reading, speaking, listening and writing) and of specific language behaviours.
- *Cognitive goals:* include mastery of both linguistic and cultural knowledge.
- *Transfer goals:* use the learning skills acquired in one situation to cope with the learning requirements of another situation.
- *Affective goals:* aim at achieving confidence both as a learner and user of the language.

Thus, according to the results of the needs analysis which has been carried out in our institution, proficiency goals should emphasise mainly the reading abilities and related strategies inherent to scientific and technical English written literature. Since most tasks involve more than one ‘macro-skill’ (Nunan, 1989: 22) other skills may be developed simultaneously, though with less emphasis. So, naturally, when dealing with different tasks and activities, skills may be integrated to build up oral, aural but particularly, writing abilities which, according to the results of the needs analysis, may be needed in the target situation, after post-graduate studies, to attend conferences, or publicise scientific as well as technical articles.

Cognitive goals however, should aim at building knowledge of the linguistic features and rhetorical cues specific to EST discourse. As for transfer goals, they could be achieved by training learners in learning how to learn. That is to say, students should learn to adapt the different skills and sub-skills they learn (like describing experiments, reading and summarising, guessing meaning from context, predicting etc...) to different situations.

Finally, while working for all these purposes, the affective goals should be catered for through a context which should be familiar to students to help them relate what they learn to their background and topical knowledge. It should also be a meaningful, motivating, cheerful and free of anxiety context, using such strategies as 'reduction' (see teacher's role) to lower embarrassment in classroom. Learners would therefore, feel relaxed and would progress in their learning, through the building of different abilities that would help them become independent and confident users of the English language.

Now that the goals are set up, they should be 'broken' down into objectives, as put in Graves (1996: 17): "*Breaking goals down into objectives is very much like making a map of the territory to be explored. It is a way for the teacher to conceptualize her course in terms of teachable chunks.*"

4.4.2- Objectives

A question should then be asked when one thinks of objectives: "*What do students need to learn or do to achieve these purposes?*" (ibid.,: 18-19).

In other words, we should deal now with content since objectives are "*...really nothing more than a particular way of formulating or stating content activities.*" (Nunan, 1988b: 60). We may therefore, think of the different types of content that exist and try to relate them to the teaching/learning situation in our institution. Graves (1996: 18) states:

"Content as knowledge might be stated as 'students will know...', 'students will learn that...' Content as skill might be stated as 'students will be able to...', 'students will develop the ability to...', Performance or behavioral objectives are most often associated with content as skill;...content as attitude and awareness would be stated as 'students will be aware that...', 'students will develop an awareness of...', or 'students will explore their attitudes towards...' objectives stated in this way can help teachers address affective aspects of learning."

In the light of this specification of objectives, we may convert, for the purposes of this research work, proficiency goals into content as knowledge, cognitive goals into content as skills, although the cognitive goals overlap with transfer goals, which are also associated with content as skills and strategies; whereas affective goals may be translated into content as attitude and awareness.

However, before specifying and organising the course content for the different phases (2nd/3rd years, 4th/5th years, and 1st post-graduate year) within this continuum which is the preparation of learners to the ultimate goal as stated earlier, it seems necessary to set up a framework of objectives and principles. The latter should illustrate a consistent, relevant, and clear content to be referred to, when specifying the content of the continuum.

➤ First, content as knowledge, should focus on reading, as it is revealed through the needs analysis, to be the students' major target activity. The content of reading in our institution however, should be gradually closer to the learners' subject-matter, from general scientific/technical knowledge to authentic subject-related documents. Along this line of thought, Graves (1996: 23) explains that:

“ The learning of language through or in conjunction with subject matter can also be the focus of a language course. Such courses have been called content-based because they integrate particular content with language teaching aims (Brinston, Snow, and Wesche 1989). Such content may be school or work related- for example, history, economics, or computer technology. A content- based course may teach the subject matter directly or use subject matter as the basis for language learning lesson. Thus the target language can be both a means for and a by-product of learning the subject-matter.”

As a matter of fact, content in our institution should be closely related to the different scientific and technical disciplines existing in our university, and will be used as the basis for language learning.

Materials (Nunan,1989: 3) can be in a linguistic form i.e., written or listening language, or a non linguistic form i.e., pictures, diagrams, charts etc.. They may be extracted from a textbook, that is approached in a 'matrix' (Graves, 1996: 29) or 'recycled', i.e.:

“The principle of recycling material means that students encounter previous material in new ways: in a new skill area, in a different type of activity, or with a new focus. For example, material encountered in a listening activity may be recycled in a writing exercise.”

This approach of recycling is interesting in the case of our institution, where there is a serious lack of documents. The same materials may be used in different activities to maintain the students' interest and avoid that predominant feeling of repetitiveness already mentioned.

The materials should also be relevant both to the students' interest and level. Along this line of thought, Graves (ibid.,: 26) states that: *“Appropriateness includes student comfort and familiarity with the material, language level, interest, and relevance...Feasibility and availability are also important to consider.”*

Materials should indeed be appropriate to the different levels. For instance, when the module of English is first introduced (generally at the third year), students share a common knowledge of basic scientific and mathematical concepts but are just beginning their specialisation. So, general science and technical texts may be recommended (see ‘parallelism’, chapter 1). For a better illustration of such texts, we may cite Hutchinson and Waters (1987:160-167) when they state:

“Look for topics which give access to a number of different specialist areas. Take pumps as a simple example: pumps are found in the body (the heart), in houses (central heating systems), in engines (petrol pumps), in hospitals (peristaltic pumps in heart-lung machines) etc. Using topics like this, learners can apply the ideas and language of a core text to their own specialist field.”

When students have a higher level of mastery over their subject-matter (4th/5th year), they can read texts closely related to their different, respective disciplines. Thus, materials may be adapted, or synthesised. However, authentic scientific and technical materials may be used when students have specialised (at the post-graduate level). Reading tasks and activities should also be related to the materials in hands.

➤ Here we come to content as skills and strategies, as well as the related tasks and activities. All of these should help learners in familiarising with the organisation of the EST paragraph (chapter I), and in recognising the inter/intra- sentential relations, through inferences/references. Students should be able, through continuous training, to use the different discursual clues to make predictions on the following events in texts, and to guess meaning from context of unknown relevant words, mainly ‘sub-technical’ vocabulary and noun-compounds. Within this line of thought, we may mention certain activities where the scientific and technical knowledge is used and developed, like problem-solving activities. Thus, the skills and activities should be context-related and

feed each other, such as reading and transferring information into tables, or diagrams, or reading and writing down summaries. In other words, learners should get used to “...*transferring naturally between one skill and another...*” (Brookes & Grundy, 1990: 5).

Moreover, the context of reading passages, or certain activities (like cloze test) would be appropriate for teaching the grammatical issues that may cause problems for comprehension, like those cited by Trimble (1992: 115-120) e.g., the passive /stative, the standard use (and non use) of the definite article in the rhetoric of description and of instructions, cohesive devices, etc...(see I.4). Learners should be trained to recognise those grammatical features inherent to scientific/technical discourse, because as with the modal use in the rhetoric of instruction, ‘should’ and ‘may’ mean ‘must’ in an instructional manual on welding which is important for science students to know, as put by Trimble (ibid.,: 119-120):

“ In our experience non-native students tend to transfer their reading techniques developed for ‘general English’ to reading EST discourse without realizing that adjustments are often necessary. As a result, they read ‘should’ with the meaning found most commonly in ESL/EFL grammars and so assume that a choice is possible”

Grammar instruction should also raise from context, and should be taught not in a discrete but in an integrative way. It should also shift from pure syntactic considerations to semantic ones as well, for “...*meaning and form are closely interrelated. We use different grammatical forms to signal differences of meaning.*” (Nunan, 1989: 10).

Here, we may think of Ellis’ notion (ELT Journal, 1993: 7) of teaching grammar through ‘focussed communication activity’ whereby learners carry out an information-gap activity for instance, without realising that the teacher is exploiting this opportunity to teach or review some grammatical items, by asking them clarification about some particular types of linguistic errors.

To sum up the different tasks through which Ellis suggests the teaching of grammar, we may cite (ibid.,: 11):

“...the notion of focussed communicative activities, consciousness-raising tasks designed to get learners to construct their own explicit grammar, and the notion of interpretation grammar tasks that get learners to listen to input and interpret

it, input that has been manipulated so as to teach a particular grammatical structure- these three approaches are compatible with what we know about how learners learn grammar.”

In addition to these procedures, students’ errors during corrections are also an important context to review or teach certain grammatical features that cause problems to learners, mainly in reading comprehension of technical and scientific literature. Such problems may appear when students write down for instance, answers for comprehension questions or build up summaries. Keh (1991: 19) states that the:

“...ability to reason about errors is important for students in the sense that it helps them in inductively discovering rules or make generalizations from the examples drawn from their writings such as to recognize some basic signals to make generalizations about the right use of tenses like always, often,...for the present simple and recently, already...for the use of the present perfect etc...”

Tasks and activities should therefore provide a context for teaching and practising different aspects of language, but also for promoting interaction in classroom, as put by Davis (1989) cited by Graves (1996: 125): *“...interaction is the process in which each student is in charge of building knowledge, so that the solution is reached through a common effort of cooperation and mutual help.”*

So, pair and group work should be encouraged in activities such as problem-solving as stated by Souillar and Ken in (Forum, 1990: 28): *“...a problem solving session is a communicative activity, since the participants will have to share ideas, explain their solutions...language and discourse will then become tools for intellectual and social tasks.”*

Such activities will also develop oral skills which cause problems to students since the latter can give their opinion, or explain their solutions. Moreover, they provide a cultural context that may familiarise them with some idiomatic expressions, and collocations (e.g., in comparison, by comparison is followed by with, not to) which may be at the origin of comprehension difficulties of certain aspects of language specific to English.

One may also think of the main activities of Prabu’s Bangalore Project (1987) which are ‘information gap’, ‘reasoning gap’, and ‘opinion gap’. According to Nunan (1989: 60), information gap *“...involves a transfer of given information from one person to*

another- or from one form to another...completing a tabular representation with information available in a given piece of text.”

Reasoning gap however, “...involves deriving some new information from given information through processes of inference, deduction, practical reasoning, or a perception of relationships or patterns...[e.g.] deciding what course of actions is best...for a given purpose and within given constraints...”.

As for opinion gap activity, it “...involves identifying and articulating a personal preference, feeling, or attitude in response to a given situation; one example is story completion...”. Thus, we may say that such activities are interesting in our context, because they encourage group, interactive, meaningful, and purposeful work.

However, within the suggested continuum in this research work, tasks and activities should be graded and sequenced across the different phases (2nd/3rd, 4th/5th, 1st post-graduate year) representing the different levels, and within each level.

Brindley (1987) quoted in Nunan (1989: 109) put forward some factors which determine the complexity of tasks like:

1. Relevance: whether the task is meaningful and appropriate.
2. Complexity: Concerning the task (steps, instructions) and the demands made on the learner as for the amount of information he/she needs to process, in order to meet the requirements of the task.
3. Amount of context provided prior to task: either in the form of input or preliminary activity.
4. Processability of language of the task: in terms of the learner’s processing capacity.
5. Amount of help available to the learner: that is, all forms of assistance (e.g. materials) provided to the learner to help him/her carry out the task successfully.
6. Degree of grammatical accuracy/ contextual appropriacy: which constitute the requirements of the task
7. Time available to the learner.

Accordingly, it appears that grading of tasks depends on the appropriacy of the linguistic and cognitive demands. In addition to such similar factors, Prabhu adds the learner’s ability in handling concepts (in Nunan, 1989: 112), putting forward factors which determine the degree of difficulty, such as:

1. Information provided: its amount and type.
2. Reasoning needed: the number of cognitive steps (deduction, inference..) needed to carry out the task.

3. Precision needed: its degree determines the complexity of the task.
4. Familiarity with constraints: whether the learner has previous knowledge and experience with the task content and purpose.
5. Degree of abstractness: the degree of the maturational level of the learner in handling concepts will determine whether he/she can meet the challenges of the task's degree of abstractness.

In the light of these different factors determining the complexity of tasks, we may illustrate a case of task gradation where comparison and contrast are involved. In this case, students should have already encountered mini-tasks such as 'how to contrast', 'how to compare', and the different related expressions as well as collocations like in comparison with/ to, in contrast, by way of contrast etc...(Keh in Ian,1991: 18), before carrying out any task involving such knowledge .

To sum up the set of the different parameters which determine the complexity of a task, and which should be taken into consideration when specifying the content of the different levels within the continuum, we may quote Nunan (1989: 116) when he stated that:

“ Determining task complexity is made difficult, not only by the range of factors involved, but also by the interaction of these factors with each other. Thus the difficulty of a task based on a simple input text can be increased by setting activities which require different learner responses. The same learner response can be made more or less difficult by selection of input, or by making demands on learners' background knowledge.”

Here, we may illustrate a type of grading across levels. For instance, in asking for the main idea of a text, students at the third year may be asked to select it from a given set of statements, whereas at the fourth year, they have to provide it themselves and write it down.

➤ To carry on with our framework of objectives, expressed in terms of content, we reach the last step which is content as attitudes and awareness, since the learner plays an important role in learning: “...*what is learned is controlled by the learner and not the teacher, not the textbooks, not the syllabus.*” (Ellis in ELT Journal, 1993: 4)

This statement shows clearly that it is not sufficient to have teachers, appropriate materials, and 'good' activities. Particular attention should be paid to the learner's needs, wants, motivation and attitude. In other words, the components that constitute an ESP course. So, not only materials and activities should be interesting, but also the

general atmosphere in class. It should be geared towards an important objective, that is developing a positive attitude and enhancing the learner's motivation to learn English. To achieve such an objective, teachers should be aware of some strategies to 'clean up' embarrassment for instance, which are called 'hygiene resources' (see teacher's role) which should: *"1....reduce embarrassment by permitting the students to participate.2....allow the teacher, and the class as a whole, to save face by maintaining at least the appearance of appropriate grade standards."* (Tudor, ELT Journal, 1993: 38).

Moreover, and in addition to equipping the learner with the different reading skills and strategies, and training him/her to transfer them whenever necessary, to meet the learning challenges of another learning situation, the learner should be helped to develop an awareness of his/her learning style. In this way, he/she can adapt it into a more effective learning style as stated by Graves (1996: 199):

"Understanding learning styles meant that learners became aware of their preferred ways of learning, analyzed their benefits and drawbacks, and learned new ways as necessary. Learning to direct one's own learning entailed devising goals and deciding on strategies for fulfilling them in each learning situation."

To have feedback about the course and the learners' problems as well as attitudes, the teacher may set up rituals like informal chats (see teacher's role) with students or incite them to write her letters *"...to find out if students are learning, not getting lost and whether they understand what is going on..."* (Tip 27, in Hands on English, July/august 1994).

Learners should also be aware of some culture specific features. They should therefore, be trained in those techniques cited by Grundy and Brookes (1990: 39) which are related to 'organizational' and linguistic skills, as well as the 'sociology of writing'. Thus, we may give examples of the linguistic skill of writing a nominal style (e.g. 'the newspaper reported Dr Jones' approval of free- range egg production') considered as formal and related to the written mode, and the verbal style ('the newspaper reported that Dr Jones approved that the hens were producing eggs while ranging freely') considered as informal and related to the spoken mode, which are however, both used in writing. As for the third aspect, it concerns a general skill like *"what to do about counter-evidence"* (ibid.,:38), whether to include it in one's writing or not, if yes, the "

...cultural mismatch may be on the organizational level e.g., how to order different elements..” (ibid.) “...before or after the positive evidence.” (ibid.,: 39).

Learners, particularly the post-graduates should be aware of such culture specific features. In effect, their target activity, in addition to reading specialised literature and summarising, would be perhaps to publicise English articles in scientific and technical journals.

Finally, to sum up the objectives within the continuum (2nd/3rd, 4th/5th, 1st year post-graduates), we may put forward:

- Content as knowledge, which should consist of:
 - Reading passages:
 - . Materials for general science and technology, parallelism (for 2nd/3rd years).
 - . Materials thematically organised and related to the learners’ different respective disciplines (for the 4th/5th years).
 - . Introduction of listening materials (from the 4th year).
 - . Authentic scientific and technical literature (at the post-graduate level).
 - Content as skills and strategies:
 - Develop reading skills and strategies
 - . Pre-reading activities
 - . Silent reading
 - . Predicting the topic of discourse (description, compare/contrast, cause/effect...)
 - . Referencing/inferencing through grammatical and lexical cohesion (pronouns, articles, demonstratives...), in addition to word formation use (affixes, compound-nouns, conversion).
 - Integrate skills (e.g. reading/answering orally comprehension questions, and then writing down summaries).
 - Teaching meaningful grammar from context (e.g. through interpretation, consciousness raising, correction of errors):
 - . Direct teaching of grammar towards the areas where students meet difficulties, according to the results of the needs analysis (use of tenses, compound-nouns).
 - . Teach Trimble’s grammatical items causing difficulty for reading comprehension (passive/stative, use of modal verbs..).
 - Train students in identifying and organising EST texts following Trimble’s rhetorical levels:

- . Identifying the topic of discourse (experiment, hypothesis...), through predicting from the title, and skimming.
- . identifying the main idea (s) e.g. reporting past research, giving examples on experimental procedures (through multiple choice questions, true/false statements..).
- . Identify the specific rhetorical functions that develop the general rhetorical functions (like description, definition, classification..), by scanning for specific information (through transfer exercises, information gap, close test, and matching activities).
- Identify the rhetorical techniques that generate relationships between rhetorical functions, like orders (e.g. movement and location prepositions, time prepositions) and patterns (e.g. time sequence, how to compare/contrast, how to define, how to describe,..).
- Study and research skills (note taking, use of resources, relationship between sections and chapters, organising and structuring information in writing).
- Skills in the management of interaction (turn-taking, interrupting).
- Integrate study and research skills in report writing, preparation of presentations...
- Encourage extensive reading.

4.4.3- Specification of content across the different levels within the continuum

➤ **For the 2nd/3rd years:**

- warm-up questions or exercises related to the topic at hand (to stimulate background knowledge).
- read silently, and identify the main idea by selecting from a list of alternatives, after skimming.
- Read and identify true/false statements.
- Read and identify antecedents of anaphoric references, working at articles, pronouns and their corresponding subjects, nouns, nominal phrases, e.g., through matching activities.
- Read and scan for specific information, like supporting details, through transfer exercises from texts to tables, charts, or diagrams.

- reading and writing skills integrated, e.g.: reading and completing a text; ordering scrambled sentences, then paragraphs; writing end of paragraphs; reading then writing short answers to comprehension questions.
- Read and identify logical relationships, working at logical connectors (first, then, therefore...etc.) and other cohesive devices like punctuation.
- Write short linked sentences about a diagram, a picture using logical connectors; then practise the use of appropriate tenses e.g., use of present or present perfect in the time clause when the time clause is used as a sequencer (in: when you have switched on all the buttons, the apparatus will function).
- Guess meaning of relevant scientific/technical words like sub-technical vocabulary as well as noun-compounds from context, and word-formation forms like affixes, conversion.
- practise the word-formation forms (above) in different activities like close test.
- Infer topic of discourse in different reading sessions e.g. classification, argumentation, cause/effect... and identify each time the rhetorical techniques that establish relationships between rhetorical units like: time order and its respective time relaters, space order with its different location and movement prepositions; comparison/contrast and their related expressions as well as forms; description and its principles (from general to particular, whole to part, outside to inside); how arguments/ counter-arguments are presented.
- Carry out mini-tasks after reading sessions to work at each time the respective rhetorical techniques mentioned above, such as comparing/contrasting simple objects, describing different steps of a process, or completing tree diagrams from texts, using appropriate collocations (in contrast, by way of contrast, in comparison with/to...), and grammatical forms like use of the passive/stative in descriptions.

➤ **For the 4th/5th years:**

In addition to reading, introduce listening and reinforce oral work e.g.:

- Listen to a text and infer answers for true/false statements.
- Listen to a text and transfer information into tables, diagrams, or charts.
- Listen to a text and identify the topic of discourse, by giving orally the main idea.

- Listen to a text and note down the different rhetorical techniques (e.g. conjunctions) related to the respective rhetorical functions of the topic at hand, like definition, classification, cause/effect...
 - listen and give oral summaries from written notes.
 - Pre-reading activities (e.g. questions related to the topic).
 - Read and infer the topic and function of the reading passage (experiment, hypothesis..).
 - Read and identify relationships within discourse like main idea, generalisation, supporting details, through transfer of information into tables.
 - Read then write down main idea (e.g. reporting past research).
 - Read and identify anaphoric links and relative clauses.
 - Read and write down answers to comprehension questions.
 - Read and infer meaning of the relevant vocabulary, through matching for instance sub-technical vocabulary with corresponding meaning, scientific and technical words with functions or characteristics.
 - Read and complete tables, or diagrams, then build up summaries from the set of information in tables.
 - Read rapidly short passages and predict topics from titles, or predict what will happen next (by writing, for instance ends of paragraphs, after concerted pair or group work).
 - Paraphrase short paragraphs, using the appropriate punctuation.
 - Integrate the mini-tasks (how to define, present arguments/counter arguments, compare/contrast) - practised in the 2nd/3rd years, in problem-solving activities, e.g. a group describing different parts of a process, an apparatus, or a phenomenon, then discussing together their descriptions before writing down presentations related to their respective specialities.
 - Integrate different time relaters (first, before, after, then...) to illustrate sequential relationships, e.g. classify, describe different steps of a process, or translate in writing, a flowchart, or an algorithm with its different phases towards problem-solving.
- **5th years:** (nearly a semester of Instruction in English).

- Reinforce the reading, as well as the listening, oral skills and strategies practised in the fourth year.
- Introduce some research skills (how to use sources, how to quote, organisation of bibliography).
- Introduce some skills in the management of interaction (how to interrupt).
- Integrate different mini-tasks practised in 2nd/3rd years and reinforced in the fourth year to write individually or in pairs, reports, presentations or any other assignments.

➤ **For the 1st post-graduate year:**

. The common-core sessions:

- Organisational and linguistic skills (ordering of elements of information, use of nominal or verbal styles), as well as expansion on research skills (e.g. use of sources, function of sub-headings, the relationship between sections and chapters, foot/end notes...)
- Review or reinforce different aspects of language still causing comprehension problems and identified while reading individually, subject-specific documents, in accordance with the individualisation principle.
- Integrate the different rhetorical functions and their related linguistic features practised through previous levels (2nd → 5th), for use in:
 - Individual presentations.
 - Simulation of debates (e.g. in conferences), using skills in the management of interaction (like turn-taking, interrupting..).
 - writing reports on subject-specific reading (done in ‘individualisation’ sessions).

. The ‘individualisation’ component feeding the common-core component and vice-versa:

- Using different reading skills and strategies already acquired (in 2nd → 5th years) and/ or reviewed in common-core sessions, for speed reading of personal scientific and technical documents.

-Using research skills studied during the common-core sessions to synthesise individual subject specific reading, and write abstracts of personal scientific and technical readings.

4.5- The learner's role

The learner should be trained to shift from his role as 'passive recipient' (Nunan, 1989) to an active interactor who answers questions, asks for clarifications, negotiates meaning and proposes solutions in problem-solving activities (2nd →5th year). Finally, he must take responsibility for his own learning (post-graduate level), bringing his own materials for reading, helping the teacher in detecting those aspects of language that still pose problems to him.

First of all, the learner should feel that he/she is an important actor on this stage which is the classroom. His/her role should be explained to him/her. He/she should be aware of the objectives of the course and of the different activities. So, questioning, proposing answers, alternatives, solutions will be possible through tasks including transformation exercises, cloze test, predicting and completing texts, paraphrasing, problem-solving, reasoning-gap, and information- gap activities which favour interaction, and create learning opportunities.

To maximise learning and maintain the learner's motivation, Kumaravadivelu B. (in ELT Journal, 1993: 13-18) proposes five macro-strategies, each one can generate several micro-strategies which are situation- specific classroom techniques. The macro-strategies consist in:

- 1- Creating learning opportunities by both teachers and learners.
- 2- The teacher should “*..show a willingness to utilize learning opportunities created by the learner.*”
- 3- Negotiated interaction should be facilitated and this “*..entails the learner's active involvement in such discourse features as clarification, confirmation, comprehension, requesting, repairing and reacting...the learner should have freedom to initiate interaction, not just react and respond to what the teacher says.*”
- 4- The learner's 'intuitive heuristics' should be activated: that is to say, the cognitive processes that help him/her identify and learn patterns of rules and language behaviours should be activated by providing him/her with consistent and varied data

to “..infer and internalize underlying rules from their use in varied communicative contexts.”

- 5- The linguistic input should be organised in units of discourse so that learners “..can benefit from the interactive effects of various components.” Indeed, learning through discreet linguistic items “..will deprive learners of necessary pragmatic cues, thereby rendering the process of meaning-making harder.”

Accordingly, learners at the USTHB should shift from their traditional role of just receiving information, to an active role as described above. For this, they should be encouraged by giving them as well the opportunity to choose among alternatives, like a set of activities (see teacher’s role), or materials. Obviously, all the data related to the teaching situation should be taken into consideration, as stated by Tudor (in ELT Journal, 1993: 30):

“Both the degree and the form of student involvement need to be geared round the realities of the teaching situation...this relates to the students themselves, but also includes factors such as availability of resources, cultural attitudes or class size.”

Learners may also be encouraged towards this active role by selecting interesting materials. Here, teachers may recommend them (particularly if there is a lack of documents like in our institution) titles of interesting materials or other sources of learning like the ‘international Keypal projects’ which allows for correspondence between students and native speakers of the target language (Knight, Shelly, in Internet Technologies For Authentic Language Learning Experiences .Eric Digest, 1997). In addition to materials, activities should be varied to maintain the students’ attention alert, as put by Hutchinson and Waters (1987: 76):

“Variety is, therefore, not just a nice thing to have for its own sake: it is a vital element in keeping the learners’ minds alert and focussed on the tasks in hand. Processing the same information through a variety of skills is one way of achieving reinforcement while still maintaining concentration.”

To be able to cope effectively with such requirements of a teaching/learning situation, teachers should be appropriately trained, which leads us to the teacher’s role.

4.6- The teacher's role

To begin with, we may cite Tudor (ELT Journal, 1993: 28) when he states:

“No teaching approach will work unless it is accepted by both teachers and students. If, for example, students come from a culture where the teacher is seen as a figure of authority, the attempt to share decision-making with students (however well-intentioned) may be seen as an abdication of responsibility and may thus forfeit students' commitment to the course as a whole.”

What is put in this quotation is relevant to the situation prevailing in our institution, where the learner knows no role other than that of listening to a teacher supposed to know everything. It would appear strange for them therefore, to face a teacher waiting for them to take initiatives! Accordingly, it is incumbent, particularly to teachers, to train and familiarise learners with the new role which will allow them to take initiatives, create learning opportunities, and gradually become responsible for their learning.

The teacher may therefore gradually guide learners through this transition by first asking them (the 2nd/3rd years) to bring for instance objects, or other materials to be used in certain activities. They may also be allowed to choose among a range of topics for discussion, or to choose for instance (4th/5th years) whatever process in chemistry, apparatus in electronics, species in natural sciences (according to their respective disciplines) they would like to describe, compare/contrast etc... They may be allowed to choose their classmates in pair or group work, like in presentations, or simulations. They may as well bring from time to time, materials for their listening sessions like songs. They may be granted for instance a quarter of time to listen to a song after a strenuous activity, it depends on the time organisation within the lesson. To make up for this time (spent in listening), students may take over the responsibility of continuing some activities as homework, like writing summaries of texts read, or listened to in the classroom. Being trained to take some initiatives, even if they are small, the learners will not be surprised (at the post-graduate level) when the teacher explains one of the twofold objectives (individualisation, and common-core) which consists in their being responsible for reading materials (individualisation), by selecting and bringing subject-related documents. Along with this first point which deals with gradually training learners to become active and responsible for their learning, the second point consists in teachers working at developing positive attitudes towards the learning of English.

Teachers may for instance, use the ‘hygiene resources’ already mentioned, and which consist in (ELT Journal, 1993: 35):

“1. reasoning aloud for the student, 2.vicarious dialogue, 3.academic palliatives, 4.substitution, 5.expansion of minimal responses, 6.question reduction, 7.rapid reading, 8.fill- in-the-slot worksheet, 9.verbatim copying, 10.dictation of notes, 11.reading aloud, 12.oral composition with the whole class.”

As stated earlier, such tricks are likely to lower embarrassment, when students are unable to cope with the difficulty of a given task, which leads to a ‘blocked’ situation. One of these ‘hygiene resources’ is ‘reduction’ defined by Mackay (*ibid.*,: 33) as: *“the sequential replacement by the teacher of the original task by cognitively less complex tasks in order to avoid the embarrassment of an unacceptably low level of student participation.”* Thus, instead of writing a composition for instance, students may give oral answers about specific information related to the topic in hand. The teacher will write on the board the adequate answers which will constitute the composition to be copied down by students. The latter’s behaviours which cause embarrassment are: *“1.Silence in response to teacher’s question, 2.Undue delay in response, 3. Incomprehensible response, 4. Inarticulate response, 5.delay in producing constructed written response, 6.incomplete written work.”* (*ibid.*, :35). However, some hygiene resources such as ‘reduction’ should not be practised in a systematic way. Students should always be enhanced to make efforts and cope with the learning challenges.

The third point which should be the concern of the teacher is to lower anxiety, and create a cheerful atmosphere in the classroom. In hands- on English (July/August, 1994), forty tips are suggested to make the teaching ‘easier’ and ‘more fun’. From time to time, teachers may use for instance, tip 33 (by Taylor, *ibid.*) whereby they write a scrambled word on the board and students *“..try to see how many one-letter words, two-letter words ,...etc. they can find..”* This is a good vocabulary builder and can last from 5 to 45 minutes.” To extrapolate, one may perhaps suggest constructing noun-compounds with scrambled words. Tip 34 (by Babayco, *ibid.*) is also interesting. The teacher keeps a box filled with cards on which are written questions, and from which he reads one to students, whenever there is some time left, *“..to see who can answer first. As cards get recycled, students get reinforcement.”* One may think of using such a ‘game’ for revision of items already studied in class, like idiomatic expressions,

collocations etc....Tip 38 however, encourages vocabulary expansion. It suggests that:” *when presenting a new word give not only its immediate meaning but expand on its uses as well.*” (Duber, *ibid.*) when introducing a verb for instance, it should be done with the different prepositions it takes and the meanings they produce. As for tip 26 (Sandeem, *ibid.*), it recommends: *“end with success. End every class with a sense of accomplishment. It’s also nice to end with a laugh, or with a game.”*

Finally, the fourth point which is the last in this part, concerns the awareness of the teacher of his potentials and limitations, before engaging in following any approach, any method, or whatever new initiative related to teaching. If she wants to opt for the role of learning counsellor for instance, she should have according to Tudor (ELT Journal, 1993: 22-23) the following additional skills:

- Personal skills: whereby *“..maturity and human intuition are key qualities.”*
- Educational skills: she should know about learning and the learner, and develop the latter’s awareness, to maximise learning.
- Course planning skills: to take into account the learner’s suggestions about the course, and reconcile them with the requirements of the teaching situation (goals, methods..) requires a consistent knowledge of approaches, methods, and course design.

This is evocative of teacher-training , to be dealt with in the following section.

4.6.1- Teacher- training

Most teachers in our institution, as shown in our investigation, are not trained in teaching EFL, and even less in ESP. They should expand their knowledge in the field of teaching EFL, particularly ESP, and in different theoretical approaches related to course design. In effect, there may be a course ready to be taught, yet the teacher should be able to cope with any raised difficulty for :”*Even when following an assigned text or syllabus, a teacher must still make decisions about what to emphasize, leave out, argument, and review and how to practice, how much, with whom, and when.*”(Graves, 1996: 4). The teacher should also be able to adapt to any teaching situation and meet its specific learning features because: *“..the guidelines are not a recipe. There is no set procedure to follow that will guarantee a successful course because each teacher and each teacher’s situation is different.”* (*ibid.*,: 5).

Thus, the teacher may be confronted for instance, to a situation with low-level students and a limited amount of time assigned to the course of English, as it is the case in our institution. This requires in addition to what has already been said, that the teacher be able to establish the length time activities within the lesson (Lawless, 2000: 110), and :”*..may adjust her teaching priorities according to the length of the course. The kinds of activities she designs may be affected by the amount of time she has, both in class and before class.*” (Graves, 1996: 54). The teacher should also be aware of the different ways of selecting, adapting, and grading materials. This may concern all teachers but, what is particularly required of the ESP teacher may be summarised in the following points (Hutchinson and Waters, 1987: 163):

“ *i) a positive attitude towards the ESP content;*

ii) a knowledge of the fundamental principles of the subject area;

iii) an awareness of how much they probably already know.

.. when confronted with a machine, for example, the teacher should not necessarily know how it works, but should be able to ask:

What is the machine used for?

What’s this part called? etc.”

In other words, the ESP teacher, who does not feel on safe ground, should be aware that she is not expected to teach a given speciality, but to immerse herself with its fundamental principles and terminology. Moreover, she does not need to learn a completely different methodology from that of general language teaching, and can exploit the acquired classroom skills and techniques in the ESP classroom, as stated by Hutchinson and Waters (ibid.,: 139-142) who put forward:

- 1- Gaps: like ‘information gaps’, ‘reasoning gaps’ etc., because they enhance thinking.
- 2- Variety: of skills, activities, topics etc., to maintain attention, increase motivation, and reinforce learning.
- 3- Prediction: to use the existing knowledge to anticipate what is to be taught in the new lesson. Thus, the learner’s mind is prepared for learning, and his/her confidence consolidated.
- 4- Enjoyment: to motivate and ‘engage the learner’s mind’, like to choose relevant materials.
- 5- An integrated methodology: integrating a certain number of skills allows the practice of a range of activities, and leads to reinforcement.

- 6- Coherence: the lesson should be clearly planned, and each stage of it should “...*lead naturally into the following stages*”.
- 7- Preparation: it is not sufficient to prepare the teacher to teach, but to prepare the learners to learn as well by providing an appropriate context of knowledge for the materials.
- 8- Involvement: to involve learners by asking them simple guiding questions, and wait for their answers so that they feel they contribute to the lesson, and are therefore, ‘emotionally involved’.
- 9- Creativity: activities should enhance different possible answers, and various levels of response, because ‘language is dynamic’.
- 10- Atmosphere: create a cooperative, social teaching environment to favour effective learning which depends on “...*intangible factors such as the relationship between teacher and student*”.

However, in the absence of an in-service training, the only alternative teachers have, in addition to reading relevant books, is the use of the Internet. The latter is interesting for instance, in “...*how it can enhance the classroom experience. The wide range of these programs (text ,image, sound, video, multimedia) makes them powerful additions to the foreign language teacher’s repertoire.*” (Leloup, Ponterio, ERIC Digest, 1997). So, by means of a simple electronic mail account the teacher “...*can integrate email-based activities into their curriculum.*” (ibid.) It can also be used for distance learning or electronic discussion groups or lists ‘LISTSERVS’ (ibid.). The latter is particularly interesting in that it can join people in forums, for similar interest discussions like FLTeach or ‘The Foreign Language Teaching Forum’, e.g. [http://alabanza.Com/Kabacoff Inter-Links/Listserv.html](http://alabanza.Com/Kabacoff%20Inter-Links/Listserv.html) is interesting for scholarly electronic lists (ibid.).

The internet is also helpful as a source of materials, like electronic journals (ibid.) and the case of Language Learning and Technology (LL&T), or Teaching English as a Second or Foreign Language: An Electronic Journal (TESL- EJ).

There are as well other internet applications which are very helpful tools for teachers, like the Web, file transfer, chat, audio, and video communication which allow real-time communication and it is therefore “...*incumbent upon the foreign language teacher to integrate these tools into the curriculum in a meaningful way...find authentic resources, and use them to make the second language classroom a marvellous place to learn.*” (ibid.). Teachers may also improve their training through reading, exchanging

experiences, and materials with each other as language teachers, as well as with subject-matter teachers. The latter's collaboration with language teachers may be varied and very helpful, and this is the concern of the next part.

4.6.2- Language/Subject-matter teachers' collaboration

As stated earlier, the preparation of learners at the USTHB towards autonomy in reading target subject related literature follows a certain continuum. It consists in reading materials first related to general science and technology (2nd/3rd years), then closely related to their respective disciplines (4th/5th years) as they are specialising. When they master their subject-matter and develop sufficiently their reading abilities, they will be able to read authentic subject related documents (at the post-graduate level). This organisation cannot be achieved without the help of subject-matter teachers, particularly those who teach the English module at the same time, and have therefore a certain degree of proficiency in English.

This is the first area where subject-matter teachers can, with collaboration with English teachers, help by finding materials that can be exploited for study in English, and at the same time direct language towards the learners' respective subjects of interest, to provide them with topical knowledge. Both types of teachers may work together on thematically grading, even broadly, the content of English materials. Here of course, some knowledge of how to adapt or synthesize is necessary. It will be interesting then to organise meetings, and workshops to work within specified criteria, and produce homogenous reading materials. However, restricted and even informal meetings may be held in case there are any constraints (time, place..).

Subject-matter teachers may as well help language teachers specialise in some disciplines, and have the necessary knowledge through consultation. The latter may also help subject-matter teachers who teach English at the same time, broaden their view which is that of teaching particularly terminology and may be, find concerted solutions to some teaching difficulties. As a matter of fact, they may together raise issues of common interest to be suggested on the NET in forum discussions with people having similar problems over the world.

They may also collaborate to write articles about issues that may interest them, and their students in the university's periodical, or create their own magazine. This is likely to generate a great deal of information for teachers to reflect over, for: "*Valuable though the knowledge of experts may be, teachers themselves are experts in their settings, and their past experience and successes can serve as bridges to new situations.*" (Graves, 1996: 6).

Such initiatives are likely to create opportunities for learning, exchanging teaching / learning experiences, questioning, finding solutions, and facilitate discussions between the teachers, the students as well as the administrative staff. In this way, the course of English produced thanks to a fruitful collaboration of teachers, extended to feedback from students and facilitation of the administration, may be (to borrow Graves' expression) 'tailored' to the needs, potentials and constraints of the whole community involved in this course.

Conclusion

I carried out this investigation in order to understand the different parameters that underlie mainly, (i) the lack of motivation of our students, (ii) the absence of progress in their learning, and their low achievements,(iii) in addition to this feeling of repetitiveness of the course of English. The research question that deals with the students' general command of English, which is low, had to be validated through a proficiency test that was administered under the same conditions to students chosen at random from different disciplines, at their last under-graduate year. The results of the test revealed that only a third of the total number of tested students obtained the pass mark, which confirmed the research assumption.

The next step of the investigation consisted in gathering information using such eliciting tools as informal interviews and questionnaires. The latter are less time-consuming and yield a considerable feedback as they are anonymous and leave some time to the respondents to answer freely. To ensure validity and reliability, triangulation was opted for whereby data were collected from informants of varied sources such as students of different levels as well as disciplines, subject/language teachers, and my own intuition as a teacher/researcher, in addition to being conversant with the situation. The areas of investigation concerned the present situation (background, profile of students, teachers), the learning needs, to be inferred from the learners' difficulties, or lacks, the teachers' methodology, the teaching experience, as well as the materials in use. The areas of investigation also concerned the target needs as perceived by teachers, and felt by students, as well as in terms of necessities, or objective needs

The results of the needs analysis have allowed the identification of some factors among which, we can mention the absence of programmes (the only official orientation is teaching terminology), in addition to the scarcity and inappropriateness of materials.. The inexperience as well as the lack of teacher training are evocative of the unsuitability of the pedagogical activities, like those related to reading, and to grammar teaching. Such factors seem to impede the effectiveness of learning, reducing instruction to grammar rules through discreet items, reading activities to explanation of single words and some comprehension questions. Listening, writing, as well as activities to promote oral skills and interaction are generally absent from the present course of English. The students' academic and target needs which should primarily deal with reading subject-related literature, training in different reading skills/strategies inherent to scientific discourse, as well as writing for research, do not seem either to figure among the

priorities of the course. There are therefore no guidelines to direct teachers towards those specific needs, and follow the evolution of the students' learning which does not seem indeed to progress. The learners' general command of English remains low, as shown in the test results, and they seem to be aware that what they learn in the course of English does not help them to read easily their subject-related literature. This leads them to an over-use of dictionaries, which hinders their reading. This situation breeds a negative attitude towards the course and lowers the students' motivation, hence the high rate of their absenteeism.

Thus, according to the results of the needs analysis, and in the light of the reviewed literature on language theories, approaches related to EFL (in general), ESP (in particular), as well as to course design, it appears that the aim of the present research work should be seen through a continuum. The latter, which is intended to follow the evolution of the students' learning from the introduction of English study to its end, constitutes a rationale, or a general framework where the suggested syllabi (to be specified) will fit. The objective of this management may be sketched as follows:

- The objectives related to the 2nd/3rd years' syllabi are aimed at meeting the learners' academic needs. The focus will be mainly on enabling them to reach the basic level of English necessary to start training in reading comprehension of general science texts.
- While the objectives of the 4th/5th years' syllabi are directed towards training students in reading comprehension of adapted, specialised scientific and technical texts, in addition to developing their writing skills. The latter may be needed for occupational purposes, but also for academic purposes, in case our learners carry out their studies up to the post-graduate level.
- As for the objectives related to the post-graduates' syllabus, they aim at meeting both academic and occupational needs. We may respectively mention reading individually specific, subject-related documents for their research and synthesising; then, presenting papers, and attending conferences.

The continuum should culminate in the achievement of some specific goals (using Sterns' framework).

First, proficiency goals should aim at a general competency in the four skills with a special emphasis on reading scientific and technical literature. Secondly, cognitive as well as transfer goals will allow learners to build up linguistic features and rhetorical clues specific to EST discourse, then learn to adapt the different skills being

trained into, to different learning situations. Finally, while working for all these goals, affective goals should be catered for, like making learners aware of their learning styles to improve them, and detecting students' behaviours causing embarrassment to remedy for them through Mackay's 'hygiene resources'. Particular attention should be paid to the classroom atmosphere which should be cheerful and free from anxiety. Learners however, should be involved in the act of learning through different contextual and purposeful activities that promote also interaction, like problem solving. These goals have been translated into objectives, respectively, in terms of content as knowledge, content as skills and strategies, then content as attitudes and awareness.

Consequently, this allowed the specification of content for the different levels involved in the continuum. Concerning materials for instance, they should be related to science and technology when English instruction is first introduced in the students' curricula, then should become by the fourth and fifth years specific to their different, respective disciplines, though adapted or synthesised. Finally, post-graduate students should be able to read authentic, subject-related literature since they master their subject-matter and have the necessary reading abilities. Thus, learners are guided through the suggested continuum, to shift smoothly from simple, adapted to authentic reading. This transition is also catered for in the building up of skills and strategies, from simple use of different linguistic and rhetorical features, like their selection from a given set to complete a close test (by the 2nd/3rd years), to their integration in information gap or problem solving activities in descriptions or comparisons of processes, or even in pair presentations (by the 4th/5th years). This transition moves on to individual presentations, writing reports, and simulation of debates in conferences (at the post-graduate level). First year post-graduates can indeed bring for their reading, their own specific documents in the individualisation component of their post-graduate course, where they can ask for clarification when necessary from the teacher who is counselling. They may as well accomplish specific assignments, and benefit from some reviews in some aspects of language when deficiencies are discovered during corrections for instance, mainly when they are common to most students. They should as well learn some study and research skills relevant to their research like how to organise information, in the common-core component of the course.

To run such a course, a language teacher is needed as he knows the language and knows about the language, although more training is needed, particularly for the inexperienced teachers, as to know about the different learning theories concerning

ESP, syllabus design, and TEFL in general. Teachers also need to immerse themselves with the style and terminology of one, or more disciplines to be more confident when dealing with subject-related literature. For this, it is desirable to establish a co-operation with subject-matter teachers whose involvement is also necessary when a thematic orientation of materials is needed (by the end of under-graduate studies), or when designing specific assignments (at the post-graduate level for instance). Both types of teachers may as well exchange teaching experiences, and discuss issues that may arise, between themselves, or even in forums of discussion on the NET. Internet indeed, offers a wide range of programs through text, image, sound, multimedia etc., to benefit from different activities to be used in the course, through file transfer for instance, which is one of the manifold applications of internet. The latter may contribute therefore to improve teachers' knowledge, and training in the absence of an in-service training, which may increase their motivation.

The centre's library should therefore be equipped with multimedia sources as well as varied appropriate books or documents to consolidate the students' learning, and increase their motivation.

Within the same line of thought, the importance of the English module may also be gradually increased within the general level, as suggested by both the teachers and the students. In addition to this, the amount of time devoted to English study should be raised to avoid any loss of knowledge, and reinforce learning.

With these different suggestions and recommendations which constitute the rationale for a global management of the course of English in the USTHB, and for the design of developmental common-core syllabi, this research work aims at following the progression of the students' learning of English, at increasing their motivation, and at preparing them to become confident, independent users of this language.

Through this research work, there is no intention to make methodological prescriptions, nor to show the superiority of one method over another. The suggested type of management does not either guarantee this result of students becoming independent users of English. Nevertheless, it provides a certain line of development which may smoothly, and gradually introduce the students to authentic materials.

One does not pretend to possess the knowledge and the assurance of an expert. Yet, it would be rewarding if this suggested type of management is criticised, refined, and enriched for a possible implementation in the future. Only then, one dare say that she

has fulfilled a duty towards one's institution and made a practical contribution to one's society.

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APPENDIX A : Tables

Tables related to under-graduates' questionnaires

Questions 1 to 5: These questions dress the profile of students. Questions 1 (institute) and 2 (year of study) are included in the code assigned to students.

Questions 1/2	Question 3		Question 4				Question 5	
	F	M	1	2	3	4	1	2
IC3Ys	04	06	05	04	01	00	03	01
Ph4Ys	06	04	03	06	01	00	03	01
Bio4Ys	04	06	03	06	01	00	03	02
Mth4Ys	08	02	03	06	01	00	03	02
Eln4Ys	05	05	03	06	01	00	03	01
Ch4Ys	06	04	03	06	01	00	03	01
CP4Ys	06	04	03	06	01	00	03	03
Eth4/Ys	07	03	03	06	01	00	03	02
CE .5Ys	04	06	01	06	02	01	03	01
ME.5Ys	05	05	01	06	02	01	03	01
Total	55	45	28	58	12	02	xxxx	xxxx

Table A.1: Answers for questions '1', '2', '3', '4', and '5' .

Question 6 : It is about the difficulty of the different skills as perceived students'.

Institute	Oral expression	Written expression	Reading - comprehension	Listening-comprehension
Industrial Chemistry	10	09	07	09
Physics	08	07	06	08
Biology	08	06	06	08
Mathematics	09	08	07	09
Electronics	08	07	06	08
Chemistry	09	08	07	08
Computer Sciences	08	05	05	07
Earth Sciences	09	08	08	08
Civil Engineering	09	07	07	08

Mechanical Engineering	09	08	08	09
Total	87	73	67	82

Table A.2 : The skills in which under-graduates meet difficulties.

Question 7: It deals with some language components (some aspects of vocabulary and grammar) which cause problems of comprehension for students ,when reading. (results are presented in, respectively, tables 3A, 3B). The table below however, concerns some aspects of vocabulary, like single words and compounds.

Institute	Single Words	compounds
Industrial Chemistry	07	09
Physics	06	06
Biology	06	06
Mathematics	07	08
Electronics	08	10
Chemistry	07	06
Computer Sciences	06	06
Earth Sciences	07	06
Civil Engineering	06	08
Mechanical Engineering	07	08
Total	67	73

Table A.3A : Aspects of language concerning vocabulary, which seem to cause difficulty for the under-graduates in reading comprehension.

Institute	connectives	passive voice	quantity expressions	comparatives	word formation
Industrial Chemistry	07	07	06	06	07
Physics	06	05	04	05	07
Biology	05	05	04	04	06
Mathematics	07	06	07	07	07
Electronics	06	06	05	05	07
Chemistry	07	06	06	07	08

Computer sciences	05	05	03	04	06
Earth Sciences	06	06	04	06	07
Civil Engineering	07	07	04	06	07
Mechanical Engineering	07	08	05	07	08
Total	63	61	48	57	70

Table A.3B : Some grammar components which seem to cause difficulty for the under-graduates in reading comprehension.

Questions 8 and 9: Are about the register of English (question 8) students learn at the USTHB during the course of English (the year these questionnaires were handed out), i.e. general (GE), general science (GS), or technical English (TE). Students should specify (question 9) whether grammar (A) is studied or not, and they should also mention whether the other skills like oral expression (B), listening (C), writing (D), reading (E) are practised during their course of English

Institute	GE	GSE	TE	A	B	C	D	E
Industrial Chemistry	06	03	00	07	03	00	03	04
Physics	08	05	00	08	02	00	05	05
Biology	04	07	00	06	02	06	04	06
Mathematics	07	04	00	05	00	00	00	03
Electronics	05	07	00	07	00	07	04	05
Chemistry	00	00	07	03	07	00	03	04
Computer Sciences	00	08	00	08	03	00	05	06
Earth-Sciences	07	02	00	06	00	00	02	04
Civil -Engineering	00	00	08	05	06	00	02	04
Mechanical-Engineering	00	00	06	00	05	00	00	03
Total	37	35	21	55	28	13	28	44

Table A.4 : The register of English which is studied, and the different skills that are covered.

Question 10: is about the sub-skills which are practised during the course of English, according to the students. These sub-skills are: Reading and explaining the vocabulary in texts (a), reading and studying relations between the different parts of the text (b), reading and working oral summaries (c); reading and writing summaries (d), grammar

exercises (e); writing sentences (f); writing paragraphs (g); preparing presentations (h), any other activity practised but not mentioned in the question (i) and here, students have to provide it as an open answer .

Institute	Sub-skills							
	a	b	c	d	e	f	g	h
Industrial Chemistry	04	00	00	00	06	03	03	00
Physics	06	00	00	00	07	05	05	00
Biology	05	00	03	00	06	04	02	00
Mathematics	02	00	00	00	09	04	01	00
Electronics	07	00	00	00	10	05	00	00
Chemistry	04	00	02	00	04	04	03	00
Computer Sciences	06	00	03	00	10	05	00	00
Earth- Sciences	05	00	00	00	10	03	05	00
Civil-Engineering	03	00	00	00	02	04	00	00
Mechanical Engineering	00	00	00	00	01	03	01	00
Total	42	00	08	00	65	40	20	00

Table A.5 : The sub-skills practised during the course of English, according to the under-graduates .

Question 11: It is about the different reasons that lie behind the learning of English apart from its being compulsory as a module. Among these reasons, the question investigates whether English is learned because it is indispensable for studies (a), or useful for travels...etc. (b), and students can also answer an open question which allows them to cite any other reasons not mentioned in the question (c).

Institute	The reasons for learning English			
	a)It is necessary for studies		b) It is useful (for travels...etc.)	
	Yes	NO	Yes	NO
Industrial Chemistry	08	02	07	03
Physics	09	01	10	00
Biology	07	03	07	03
Mathematics	10	00	07	03

Electronics	09	01	06	04
Chemistry	08	02	07	03
Computer Sciences	10	00	07	03
Earth-Sciences	08	02	08	02
Civil-Engineering	10	00	07	03
Mechanical-Engineering	09	01	09	01
Total	88	12	75	25

Table A.6 : The reasons for learning English, according to the under-graduates .

Question 12: It is about the strategies adopted by students when reading, such as trying to understand all the unknown words in the text (a), or trying rather to understand the general ideas (b), and students can also provide any other used strategy that is not mentioned in the question, as an answer (c).

Institute	a	b
Industrial Chemistry	06	04
Physics	06	04
Biology	05	05
Mathematics	08	02
Electronics	07	03
Chemistry	08	02
Computer Sciences	06	04
Earth-Sciences	08	02
Civil-Engineering	08	02
Mechanical-Engineering	09	01
Total	71	29

Table A.7 : The strategies adopted by the under-graduates .

Question 13: It deals with the register of English students would like to study, whether it is general interest English (a), English related to their subject of specialism (b), or both registers (c).

Institute	General English (a)	Subject-related English (b)	Both registers of English (c)

Industrial Chemistry	03	03	04
Physics	03	02	05
Biology	03	01	06
Mathematics	01	00	09
Electronics	02	01	07
Chemistry	00	04	06
Computer-Sciences	01	03	06
Earth-Sciences	00	00	10
Civil-Engineering	00	00	10
Mechanical-Engineering	00	01	09
Total	13	15	72

Table A.8 : The preferred register of English according to the under-graduates .

Question 14: Deals with the skills which need to be reinforced according to the students, and with respect to their studies. These skills should be ranked from '1' to '4', number '1' being the most important skill that needs reinforcement .

Institute	a) listening comprehension				b) oral expression				c) written expression				d) reading comprehension			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Industrial Chemistry	04	02	02	02	02	00	04	04	01	04	03	02	03	04	01	02
Physics	04	04	00	02	02	01	05	02	01	00	05	04	03	05	00	02
Biology	01	03	03	03	02	03	01	04	02	03	03	02	05	01	03	01
Mathematics	03	02	02	03	02	03	03	02	00	05	03	02	05	00	02	03
Electronics	03	01	04	02	02	04	02	02	01	04	00	05	04	01	04	01
Chemistry	02	05	01	02	02	03	04	01	04	02	02	02	02	00	03	05
Computer-Sciences	04	00	02	04	01	04	03	02	02	05	02	01	03	01	03	03
Earth-Sciences	02	05	02	01	05	03	01	01	01	02	04	03	02	00	03	05
Civil-Engineering	01	05	03	01	04	00	04	02	01	02	02	05	04	03	01	02
Mechanical-Engineering	04	02	04	00	01	04	02	03	01	04	00	05	04	00	04	02
Total	28	29	23	20	23	25	29	23	14	31	24	31	35	15	24	26

Table A.9 : The skills that need reinforcement according to the under-graduates .

Question 15: Students here have to indicate which activity (ies) they think is (are) most appropriate for their studies, among the different activities pertaining to the four skills: listening comprehension (A), written expression (B), oral expression (C), and reading comprehension (D). The results are presented in, respectively, tables A.10A, A.10B, A.10C, and A.10D. At the end of each set of activities, there is an open question so that students can add any other sub-skill not mentioned in the question, and needed for their studies.

The different activities are :

- | | |
|--|---|
| (A) Listening comprehension | (B) Written expression |
| (a) Understand lectures in English . | (a) Write subject-related reports and articles . |
| (b) Understand subject-related conversations | (b) Take notes (lectures, conferences) . |
| (c) Understand general conversations . | (c) Write letters, fill in forms . |
| (d) Understand television programmes . | |
| (C) Oral expression | (D) Reading comprehension |
| (a) Take part in general conversations . | (a) Read subject-related literature (articles, books) |
| (b) Take part in subject-related conversations . | (b) Read general literature (magazines, newspapers) |
| (c) Present an oral report . | |

Institute	Listening comprehension (Skill A)			
	Activity (a)	Activity (b)	Activity (c)	Activity (d)
Industrial Chemistry	06	07	07	05
Physics	05	06	06	04
Biology	04	06	07	05
Mathematics	06	08	08	05
Electronics	04	07	06	06
Chemistry	05	07	06	04
Computer-Sciences	02	07	06	03

Earth-Sciences	04	08	07	04
Civil-Engineering	04	07	06	03
Mechanical-Engineering	04	08	07	04
Total	44	71	66	43

Table A.10A : The different activities as indicated by the under-graduates, according to their priority and relevance for their studies .

Institute	Written expression (Skill B)		
	Activity (a)	Activity (b)	Activity (c)
Industrial Chemistry	06	05	05
Physics	05	04	03
Biology	07	05	04
Mathematics	08	03	05
Electronics	06	05	04
Chemistry	07	04	05
Computer-Sciences	06	04	03
Earth-Sciences	07	06	04
Civil-Engineering	08	04	05
Mechanical-Engineering	08	03	04
Total	68	43	42

Table A.10B: The different activities chosen by the under-graduates for their appropriateness for their studies .

Institute	Oral expression (Skill C)		
	Activity (a)	Activity (b)	Activity (c)
Industrial Chemistry	06	07	06
Physics	06	07	06
Biology	05	08	05
Mathematics	07	07	07
Electronics	05	08	05

Chemistry	06	09	06
Computer-Sciences	05	07	06
Earth-Sciences	07	08	08
Civil-Engineering	06	09	07
Mechanical-Engineering	07	08	09
Total	60	78	65

Table A.10C: The different activities chosen by the under-graduates, according to their priority and appropriateness for their studies.

Institute	Reading comprehension (Skill D)	
	Activity (a)	Activity (b)
Industrial Chemistry	06	04
Physics	05	05
Biology	06	04
Mathematics	07	03
Electronics	04	06
Chemistry	05	05
Computer-Sciences	06	04
Earth-Sciences	08	02
Civil-Engineering	08	02
Mechanical-Engineering	08	02
Total	63	37

Table A.10D: The activities (under skill D) the under-graduates have indicated, as being appropriate for their studies.

Question 16, investigates whether the amount of instruction in English is sufficient, and if not, students should suggest the number of hours of instruction they would like to have in question 17 .

Institute	Question 16		Question 17		
	Yes	No	2 to 4 hours	4 to 6 hours	6 to 8 hours
Industrial Chemistry	03	07	05	03	00

Physics	00	10	09	01	00
Biology	00	10	08	00	00
Mathematics	00	10	04	06	00
Electronics	00	10	07	01	00
Chemistry	00	08	04	03	00
Computer-Sciences	00	10	07	01	00
Earth-Sciences	01	09	06	00	00
Civil-Engineering	01	09	08	01	00
Mechanical-Engineering	00	09	04	01	00
Total	05	92	62	17	00

Table A.11 : Questions 16 and 17, about the amount of instruction in English .

Tables corresponding to the post-graduates' questionnaires.

Questions 1/2	Question 3		Question 4				Question 5	
	F	M	1	2	3	4	1	2
ICPG	04	02	01	02	02	01	03	01
PhPG	02	04	00	02	03	01	03	01
MthPG	03	03	01	01	03	01	03	02
ElnPG	02	04	00	02	03	01	03	01
ChPG	02	04	00	02	04	00	03	02
CPPG	03	03	01	01	03	01	03	03
EthPG	03	03	00	01	04	01	03	02
CEPG	02	04	01	02	02	01	03	01
MEPG	03	03	00	01	04	01	03	01
Total	24	30	04	14	28	08	XXXX	XXXX

Table A.12 : Answers for questions '1', '2', '3', '4', and '5' .

Question 6 : It is about the different skills in which students say they meet difficulties.

Institute	Oral expression	Written expression	Reading - comprehension	Listening-comprehension
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Industrial Chemistry	06	04	04	06
Physics	06	05	04	06
Mathematics	06	05	05	04
Electronics	05	04	05	06
Chemistry	06	04	04	06
Computer Sciences	05	04	03	05
Earth Sciences	05	04	05	05
Civil Engineering	06	05	04	06
Mechanical Engineering	06	05	05	05
Total	51	40	39	49

Table A.13 : The Skills in which the post-graduates say they meet difficulties.

Question 7: About some language components (some aspects of vocabulary and grammar) which cause problems of comprehension for students, when reading. The results are presented in tables A.14A, and A.14B.

Institute	Single Words	compounds
Industrial Chemistry	04	05
Physics	03	04
Mathematics	04	05
Electronics	03	04
Chemistry	05	06
Computer Sciences	02	05
Earth Sciences	02	05
Civil Engineering	05	06
Mechanical Engineering	04	06
Total	32	46

Table A.14A : The aspects of language concerning vocabulary, which seem to cause difficulty for the post-graduates in reading comprehension.

Institute	connectives	passive	quantity	comparatives	word
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		voice	expressions		formation
Industrial Chemistry	05	04	03	04	05
Physics	04	05	02	04	05
Mathematics	05	04	04	05	06
Electronics	05	04	02	03	04
Chemistry	05	05	04	05	06
Computer sciences	05	03	02	03	04
Earth Sciences	04	05	03	04	05
Civil Engineering	05	05	04	05	06
Mechanical Engineering	06	05	05	04	05
Total	44	40	29	37	46

Table A.14B: Some grammar components which seem to cause difficulty for post-graduates in reading comprehension.

Questions 8 and 9: Are about the register of English (question 8) students learn at the USTHB during the course of English (the year these questionnaires were handed out), i.e. general (GE), general science (GS), or technical English (TE). Students should specify (question 9) whether grammar (A) is studied or not, and they should also mention whether the other skills like oral expression (B), listening (C), writing (D), reading (E) are practised during their course of English

Institute	GE	GSE	TE	A	B	C	D	E
Industrial Chemistry	04	03	00	04	02	04	03	06
Physics	05	05	00	04	03	04	04	06
Mathematics	04	06	00	06	01	06	05	04
Electronics	05	05	00	04	02	03	04	05
Chemistry	04	04	00	04	03	04	04	05
Computer Sciences	00	06	00	06	03	06	06	06
Earth-Sciences	04	05	00	06	04	06	05	06
Civil -Engineering	06	06	00	06	04	06	05	06
Mechanical-Engineering	04	05	00	06	02	06	04	06

Total	36	45	00	46	24	45	40	50
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Table A.15 : The register of English which is studied, and the different skills that are covered .

Question 10: is about the sub-skills which are practised during the course of English, according to the post-graduates .

Institute	Sub-skills							
	a	b	c	d	e	f	g	h
Industrial Chemistry	05	04	04	05	05	06	04	05
Physics	04	05	05	06	06	04	05	06
Mathematics	04	04	05	04	05	05	04	03
Electronics	05	00	04	02	04	05	03	02
Chemistry	04	04	05	06	05	04	04	06
Computer Sciences	04	03	05	05	04	06	05	05
Earth- Sciences	04	04	05	06	06	05	04	06
Civil-Engineering	05	04	03	02	02	05	03	00
Mechanical Engineering	05	04	05	05	05	04	04	05
Total	40	32	41	41	42	44	36	38

Table A.16 : The sub-skills practised during the course of English, according to the post-graduates .

Question 11: It is about the different reasons that lie behind the learning of English apart from its being compulsory as a module.

Institute	The reasons for learning English			
	a)It is necessary for studies		b) It is useful (for travels...etc.)	
	Yes	NO	Yes	NO
Industrial Chemistry	06	00	05	01
Physics	06	00	03	03
Mathematics	06	00	04	02
Electronics	06	00	05	01
Chemistry	06	00	04	02
Computer Sciences	06	00	04	02

Earth-Sciences	06	00	03	03
Civil-Engineering	06	00	03	03
Mechanical-Engineering	05	01	04	02
Total	53	01	35	19

Table A.17 : The reasons for learning English .

Question 12: It is about the strategies adopted by students when reading.

Institute	a	b
Industrial Chemistry	04	04
Physics	03	05
Mathematics	03	05
Electronics	03	04
Chemistry	02	05
Computer Sciences	03	06
Earth-Sciences	02	05
Civil-Engineering	03	05
Mechanical-Engineering	03	05
Total	26	44

Table A.18 : The strategies adopted by the post-graduates .

Question 13: It deals with the register of English post-graduates would like to study .

Institute	General English (a)	Subject-related English (b)	Both registers of English (c)
Industrial Chemistry	00	00	06
Physics	00	00	06
Mathematics	00	00	06
Electronics	00	00	06
Chemistry	00	01	05
Computer-Sciences	00	01	05
Earth-Sciences	00	04	02
Civil-Engineering	00	02	04
Mechanical-Engineering	00	04	02

Total	00	12	42
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Table A.19 : The preferred register of English according to post-graduates .

Question 14: Deals with the skills which need to be reinforced according to the students, and with respect to their studies. These skills should be ranked from '1' to '4' , number '1' being the most important skill that needs reinforcement .

Institute	a) listening comprehension				b) oral expression				c) written expression				d) reading comprehension			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Industrial Chemistry	03	01	01	01	01	03	02	00	00	01	01	04	02	01	02	01
Physics	01	02	01	02	01	01	03	01	02	01	02	01	02	02	00	02
Mathematics	04	01	00	01	01	04	00	01	01	00	03	02	00	01	03	02
Electronics	03	02	00	01	02	03	00	01	00	01	03	02	01	00	03	02
Chemistry	02	01	02	01	01	01	02	02	00	04	01	01	03	00	01	02
Computer-Sciences	01	02	03	00	00	00	02	04	01	03	00	02	04	01	01	00
Earth-Sciences	01	01	02	02	01	02	01	02	00	03	01	02	04	00	02	00
Civil-Engineering	02	01	02	01	01	01	02	02	01	02	01	02	02	02	01	01
Mechanical-Engineering	02	01	02	01	00	01	02	03	00	04	02	00	04	00	00	02
Total	19	12	13	10	08	16	14	16	05	19	14	16	22	07	13	12

Table A.20 : The skills that need reinforcement according to the post-graduates .

Question 15: Students here have to indicate which activity (ies) they think is (are) most appropriate for their studies, among the different activities pertaining to the four skills: listening comprehension (A), written expression (B), oral expression (C), and reading comprehension (D). The results are presented in, respectively, tables A.10A, A.10B, A.10C, and A.10D. At the end of each set of activities, there is an open question so that students can add any other sub-skill not mentioned in the question, and needed for their studies.

The different activities are :

(A) Listening comprehension

(B) Written expression

(a) Understand lectures in English .

(a) Write subject-related reports and articles

(b) Understand subject-related conversations (b) Take notes (lectures, conferences) .

(c) Understand general conversations . (c) Write letters, fill in forms .

(d) Understand television programmes .

(C) Oral expression

(D) Reading comprehension

(a) Take part in general conversations .

(a) Read subject-related literature (articles, books)

(b) Take part in subject-related conversations .

(b) Read general literature (magazines, newspapers)

(c) Present an oral report .

Institute	Listening comprehension (Skill A)			
	Activity (a)	Activity (b)	Activity (c)	Activity (d)
Industrial Chemistry	02	06	05	03
Physics	03	06	04	04
Mathematics	04	06	05	03
Electronics	03	06	03	02
Chemistry	02	06	05	03
Computer-Sciences	04	06	06	02
Earth-Sciences	03	06	04	03
Civil-Engineering	03	06	05	02
Mechanical-Engineering	04	06	06	04
Total	28	54	43	26

Table A.21A : The different activities as indicated by the post-graduates, according to their priority and appropriateness for their studies .

Institute	Written expression (Skill B)		
	Activity (a)	Activity (b)	Activity (c)
Industrial Chemistry	06	04	03
Physics	06	04	04
Mathematics	05	05	03

Electronics	06	05	04
Chemistry	06	04	02
Computer-Sciences	06	04	03
Earth-Sciences	06	06	06
Civil-Engineering	06	05	04
Mechanical-Engineering	06	04	03
Total	53	41	32

Table A.21B : The different activities chosen by the post-graduates for their appropriateness for their studies .

Institute	Oral expression (Skill C)		
	Activity (a)	Activity (b)	Activity (c)
Industrial Chemistry	04	06	05
Physics	05	06	06
Mathematics	04	06	03
Electronics	04	05	03
Chemistry	05	06	02
Computer-Sciences	04	06	04
Earth-Sciences	06	06	06
Civil-Engineering	04	06	04
Mechanical-Engineering	05	06	05
Total	41	53	38

Table A.21C: The different activities chosen by the post-graduates, according to their priority and appropriateness for their studies.

Institute	Reading comprehension (Skill D)	
	Activity (a)	Activity (b)
Industrial Chemistry	06	04
Physics	06	05
Mathematics	06	03
Electronics	06	04

Chemistry	06	04
Computer-Sciences	06	05
Earth-Sciences	06	06
Civil-Engineering	06	03
Mechanical-Engineering	06	04
Total	54	38

Table A.21D : The activities (under skill D) post-graduates have indicated, as being appropriate for their studies.

Question 16, investigates whether the amount of instruction in English is sufficient, and if not, post-graduates should suggest the number of hours of instruction they would like to have in question 17 .

Institute	Question 16		Question 17		
	Yes	No	2 to 4 hours	4 to 6 hours	6 to 8 hours
Industrial Chemistry	00	06	03	03	00
Physics	00	06	03	03	00
Mathematics	00	06	03	03	00
Electronics	00	06	01	05	00
Chemistry	00	06	04	02	00
Computer-Sciences	00	06	04	02	00
Earth-Sciences	00	06	05	01	00
Civil-Engineering	01	05	03	02	00
Mechanical-Engineering	00	06	06	00	00
Total	01	53	32	21	00

Table A.22 : Questions 16 and 17, about the amount of instruction in English .

Tables related to former post-graduates' questionnaires

Questions 1 to 5: As in the two previous questionnaires, questions from 1 to 5 depict the profile of the informants. Questions 1 (institute) and 2 (year of study) are included in the code assigned to each sample. Only nine institutes are represented, since post-graduate studies were interrupted for some years (since 94/96) at the institute of natural sciences. Thus, one sample has been chosen randomly to represent each institute. The initials FP stand for former post-graduate. The other initials represent the different institutes as in the other two previous questionnaires. IC, therefore, stands for industrial chemistry, Ph for physics, Mth for mathematics, Eln for electronics, Ch for chemistry, CP for computer sciences, Eth for earth sciences, CE for civil engineering, and ME for mechanical engineering.

Questions 1/2	Question 3		Question 4				Question 5	
	F	M	1	2	3	4	1	2
IC FP.	01	00	00	00	01	00	03	02
Ph FP.	00	01	00	00	01	00	03	01
Mth FP .	01	00	00	00	01	00	03	01
Eln FP.	01	00	00	00	00	01	03	01
Ch FP.	01	00	00	00	01	00	03	02
CP FP.	00	01	00	00	00	01	03	03
Eth FP.	00	01	00	00	00	01	03	01
CE FP.	01	00	00	00	00	01	03	01
ME FP.	00	01	00	00	00	01	03	01
Total of answers	05	04	00	00	04	05	xxxx	xxxx

Table A.23 : Answers for questions '1', '2', '3', '4', and '5' .

Question 6 : It is about the difficulty of the different skills.

Institute	Oral expression	Written expression	Reading - comprehension	Listening-comprehension
Industrial Chemistry	01	01	01	01
Physics	01	01	01	01
Mathematics	01	01	00	01
Electronics	01	01	01	01
Chemistry	01	01	01	01
Computer Sciences	01	00	00	01
Earth Sciences	01	01	01	01
Civil Engineering	01	01	01	01
Mechanical Engineering	01	01	01	01
Total	09	08	07	09

Table A.24 : The skills in which former post-graduates meet difficulties.

Question 7: It deals with some language components (some aspects of vocabulary and grammar) which cause problems of comprehension for the informants, when reading. The table below concerns some aspects of vocabulary, like single words and compounds.

Institute	Single Words	compounds
Industrial Chemistry	01	01
Physics	01	01
Mathematics	01	01
Electronics	00	01
Chemistry	01	01
Computer Sciences	00	01
Earth Sciences	00	01
Civil Engineering	01	01
Mechanical Engineering	01	01
Total	06	09

Table A.25A : The aspects of language concerning vocabulary, which cause difficulty for former post-graduates in reading comprehension.

The following table however, concerns grammar components which cause difficulties to students, in reading comprehension.

Institute	connectives	passive voice	quantity expressions	comparatives	word formation
Industrial Chemistry	01	01	01	01	01
Physics	01	01	00	00	01
Mathematics	01	01	01	01	01
Electronics	01	00	00	00	01
Chemistry	01	01	00	01	01
Computer sciences	01	00	00	00	01
Earth Sciences	01	01	00	00	01
Civil Engineering	01	01	00	01	01
Mechanical Engineering	01	01	01	01	01
Total	09	07	03	05	09

Table A.25B : Some grammar components which cause difficulty for former post-graduates in reading comprehension.

Questions 8 and 9: Are about the register of English (question 8) former post-graduates have had at the USTHB), i.e. general (GE), general science (GS), or technical English (TE). They should specify (question 9) whether grammar (A), oral expression (B), listening (C), writing (D), and reading (E) have been practised during their course of English

Institute	GE	GSE	TE	A	B	C	D	E
Industrial Chemistry	01	00	01	01	01	00	01	00
Physics	01	00	00	01	00	01	00	01
Mathematics	01	00	00	01	00	00	01	00
Electronics	01	00	00	01	00	01	01	01
Chemistry	01	00	01	01	01	00	00	00
Computer Sciences	00	01	00	01	01	01	01	01
Earth-Sciences	00	01	00	01	00	01	00	00

Civil -Engineering	00	00	01	01	01	00	01	01
Mechanical-Engineering	00	00	01	00	01	00	00	00
Total	05	02	04	08	05	04	05	04

Table A.26 : The register of English which is studied, and the different skills that are covered .

Question 10: is about the sub-skills which are practised during the course of English, according to the students .

Institute	Sub-skills							
	a	b	c	d	e	f	g	h
Industrial Chemistry	01	00	00	01	00	01	00	00
Physics	01	00	00	00	01	01	00	00
Mathematics	01	00	00	00	01	00	00	00
Electronics	01	00	00	00	01	01	00	00
Chemistry	01	00	00	00	00	01	00	00
Computer Sciences	01	00	00	01	01	01	01	00
Earth- Sciences	01	00	00	00	01	01	00	00
Civil-Engineering	01	00	00	01	00	01	00	00
Mechanical Engineering	01	00	00	00	00	01	00	00
Total	09	00	00	03	05	08	01	00

Table A.27 : The sub-skills practised during the course of English, according to former post-graduates .

Question 11: It is about the different reasons that lie behind the learning of English apart from its being compulsory as a module.

Institute	The reasons for learning English			
	a)It is necessary for studies		b) It is useful (for travels...etc.)	
	Yes	NO	Yes	NO
Industrial Chemistry	01	00	01	00
Physics	01	00	01	00
Mathematics	01	00	00	01
Electronics	01	00	01	00

Chemistry	01	00	00	01
Computer Sciences	01	00	01	00
Earth-Sciences	01	00	01	00
Civil-Engineering	01	00	00	01
Mechanical-Engineering	01	00	01	00
Total	09	00	06	03

Table A.28 : The reasons for learning English .

Question 12: It is about the strategies adopted by students when reading

Institute	a	b
Industrial Chemistry	01	00
Physics	00	01
Mathematics	00	01
Electronics	01	00
Chemistry	01	00
Computer Sciences	00	01
Earth-Sciences	01	00
Civil-Engineering	00	01
Mechanical-Engineering	01	00
Total	05	04

Table A.29 : The strategies adopted by former post-graduates .

Question 13: It deals with the register of English students would like to study .

Institute	General English (a)	Subject-related English (b)	Both registers of English (c)
Industrial Chemistry	00	01	00
Physics	00	00	01
Mathematics	00	01	00
Electronics	00	00	01
Chemistry	00	00	01
Computer-Sciences	00	00	01
Earth-Sciences	00	00	01

Civil-Engineering	00	01	00
Mechanical-Engineering	00	01	00
Total	00	04	05

Table A.30 : The preferred register of English according to the former post-graduates .

Question 14: Deals with the skills which need to be reinforced according to the students, and with respect to their studies. These skills should be ranked from '1' to '4' , number '1' being the most important skill that needs reinforcement .

Institute	a) listening comprehension				b) oral expression				c) written expression				d) reading comprehension			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Industrial Chemistry	01	00	00	00	00	01	00	00	00	00	00	01	00	00	01	00
Physics	00	01	00	00	00	00	01	00	01	00	00	00	00	00	00	01
Mathematics	00	00	01	00	00	00	00	01	01	00	00	00	00	01	00	00
Electronics	00	00	00	01	00	00	01	00	01	00	00	00	00	01	00	00
Chemistry	00	00	01	00	00	00	00	01	01	00	00	00	00	01	00	00
Computer-Sciences	00	00	01	00	00	00	00	01	01	00	00	00	00	01	00	00
Earth-Sciences	01	00	00	00	00	01	00	00	00	00	01	00	00	00	00	01
Civil-Engineering	00	00	01	00	00	00	00	01	01	00	00	00	00	01	00	00
Mechanical-Engineering	00	00	01	00	00	00	00	01	01	00	00	00	00	01	00	00
Total	02	01	05	01	00	02	02	05	07	00	01	01	00	06	01	02

Table A.31 : The skills that need reinforcement according to the former post-graduates .

Question 15: Students here have to indicate which activity (ies) is (are) appropriate for their studies, among the different activities pertaining to the four skills: listening comprehension (A), written expression (B), oral expression (C), and reading comprehension (D). At the end of each set of activities, there is an open question so that students can add any other activity not mentioned in the question, and needed for their studies. The results are presented in, respectively, tables A.32A, A.32B, A.32C, and A.32D.

The different activities are :

- (A) Listening comprehension
- (a) Understand lectures in English .
- (b) Understand subject-related conversations .
- (c) Understand general conversations .
- (d) Understand television programmes .
- (B) Written expression
- (a) Write subject-related reports and articles .
- (b) Take notes (lectures, conferences) .
- (c) Write letters, fill in forms .
- (C) Oral expression
- (a) Take part in general conversations .
- (b) Take part in subject-related conversations .
- (c) Present an oral report .
- (D) Reading comprehension
- (a) Read subject-related literature (articles, books)
- (b) Read general literature (magazines, newspapers)

Institute	Listening comprehension (Skill A)			
	Activity (a)	Activity (b)	Activity (c)	Activity (d)
Industrial Chemistry	01	01	01	00
Physics	01	01	01	00
Mathematics	00	01	01	00
Electronics	00	01	01	00
Chemistry	01	01	01	00
Computer-Sciences	01	01	01	01
Earth-Sciences	01	01	01	01
Civil-Engineering	00	01	01	00
Mechanical-Engineering	00	01	00	00
Total	05	09	08	02

Table A.32A : The different activities as indicated by the former post-graduates, according to their priority and appropriateness for their studies .

Institute	Written expressionb(Skill B)		
	Activity (a)	Activity (b)	Activity (c)
Industrial Chemistry	01	01	01
Physics	01	01	00
Mathematics	01	01	00
Electronics	01	01	01
Chemistry	01	01	01
Computer-Sciences	01	01	01
Earth-Sciences	01	01	01
Civil-Engineering	01	01	01
Mechanical-Engineering	01	00	00
Total	09	08	06

Table A.32B : The different activities chosen by the former post-graduates for their appropriateness for their studies .

Institute	Oral expression (Skill C)		
	Activity (a)	Activity (b)	Activity (c)
Industrial Chemistry	00	01	01
Physics	01	01	01
Mathematics	00	01	01
Electronics	01	01	01
Chemistry	00	01	01
Computer-Sciences	01	01	01
Earth-Sciences	01	01	01
Civil-Engineering	01	01	01
Mechanical-Engineering	00	01	01
Total	05	09	09

Table A.32C : The different activities chosen by the former post-graduates according to their priority and appropriateness for their studies.

Institute	Reading comprehension (Skill D)	
	Activity (a)	Activity (b)
Industrial Chemistry	01	00
Physics	01	01
Mathematics	01	00
Electronics	01	01
Chemistry	01	00
Computer-Sciences	01	01
Earth-Sciences	01	01
Civil-Engineering	01	00
Mechanical-Engineering	01	00
Total	09	04

Table A.32D : The activities (under skill D) former post-graduates have indicated, as being appropriate for their studies.

Question 16, investigates whether the amount of instruction in English is sufficient, and if not, students should suggest the number of hours of instruction they would like to have in question 17 .

Institute	Question 16		Question 17		
	Yes	No	2 to 4 hours	4 to 6 hours	6 to 8 hours
Industrial Chemistry	01	00	01	00	00
Physics	00	01	00	01	00
Mathematics	00	01	00	01	00
Electronics	00	01	00	01	00
Chemistry	00	01	00	01	00
Computer-Sciences	00	01	00	00	01
Earth-Sciences	00	01	00	00	01
Civil-Engineering	00	01	00	00	01
Mechanical-Engineering	00	01	00	00	01
Total	01	08	01	04	04

Table A.33 : Questions 16 and 17, about the amount of instruction in English .

Tables related to teachers' questionnaires

Questions 1 to 4

Question 1	Question 2		Question 3			Question 4		
	F	M	1	2	3	1	2	3
Physics	00	01	01	00	00	01	00	00
Electronics 1	01	00	01	00	00	01	00	00
Electronics 2	01	00	01	00	00	01	00	00
Biology 1	01	00	01	00	00	01	00	00
Biology 2	00	01	01	00	00	01	00	00
Biology 3	01	00	01	00	00	01	00	00
Earth-Sciences 1	01	00	01	00	00	01	00	00
Earth-Sciences 2	00	01	00	01	00	01	00	00
Earth-Sciences 3	01	00	01	00	00	01	00	00
Earth-Sciences 4	00	01	01	00	00	01	00	00
Earth-Sciences 5	00	01	01	00	00	01	00	00
Computer-Sciences 1	00	01	00	01	00	01	00	00
Computer-Sciences 2	01	00	01	00	00	01	00	00
Computer-Sciences 3	01	00	01	00	00	01	00	00
Computer-Sciences 4	01	00	01	00	00	01	00	00
Computer-Sciences 5	01	00	01	00	00	01	00	00
Mathematics 1	00	01	01	00	00	01	00	00
Mathematics 2	00	01	01	00	00	01	00	00
Mathematics 3	01	00	01	00	00	01	00	00
Chemistry 1	01	00	01	00	00	01	00	00
Chemistry 2	01	00	00	01	00	00	01	00
Chemistry 3	00	01	00	00	01	00	01	00
Civil-engineering	01	00	00	01	00	00	01	00
Mechanical-engineering	00	01	00	01	00	00	01	00
Industrial-chemistry	00	01	00	01	00	00	01	00
All institutes /Post-G. 1	01	00	00	01	00	00	01	00
All institutes /Post-G. 2	01	00	00	01	00	01	00	00

All institutes/beginners 1	01	00	01	00	00	01	00	00
All institutes/beginners 2	01	00	01	00	00	01	00	00
All institutes/beginners 3	01	00	01	00	00	01	00	00
Total	19	11	21	08	01	24	06	00

Table A.34 : About the teachers' profile : institute (1), sex (2), age (3), and their position (4), i.e., either part-time, full-time, or associate teachers.

Questions 5 to 8:

Institute	Question 5	Question 6		Question 7		Question 8		
		YES	NO	YES	NO	1	2	3
Physics	licence teach.	00	01	01	00	01	00	00
Electronics 1	licence teach.	00	01	01	00	01	00	00
Electronics 2	licence teach.	00	01	01	00	01	00	00
Biology 1	licence teach.	00	01	01	00	01	00	00
Biology 2	licence teach.	00	01	01	00	01	00	00
Biology 3	licence teach.	00	01	01	00	01	00	00
Earth-Sciences 1	licence teach.	00	01	01	00	01	00	00
Earth-Sciences 2	licence trans.	00	01	01	00	01	00	00
Earth-Sciences 3	licence trans.	00	01	01	00	01	00	00
Earth-Sciences 4	licence teach.	00	01	01	00	01	00	00
Earth-Sciences 5	licence teach.	00	01	01	00	01	00	00
Computer-Sciences 1	licence teach.	00	01	01	00	01	00	00
Computer-Sciences 2	licence teach.	00	01	01	00	01	00	00
Computer-Sciences 3	licence trans.	00	01	01	00	01	00	00
Computer-Sciences 4	licence trans.	00	01	01	00	01	00	00
Computer-Sciences 5	licence teach.	00	01	01	00	01	00	00
Mathematics 1	licence trans.	00	01	01	00	01	00	01
Mathematics 2	Licence trans.	00	01	01	00	01	00	00
Mathematics 3	'Licence' trans.	00	01	01	00	01	00	00
Chemistry 1	Licence teach.	00	01	01	00	01	00	00
Chemistry 2	Magister ch.	00	01	01	00	00	00	00

Chemistry 3	Phd. Ch.	01	00	01	00	01	01	00
Civil-engineering	Magister C.E	01	00	01	00	01	00	00
Mechanical-engineering	Phd. M.E	01	00	01	00	00	00	00
Industrial-chemistry	Phd. I.Ch.	01	00	01	00	01	01	00
All institutes /Post-G. 1	Licence teach.	00	01	01	00	01	00	01
All institutes /Post-G. 2	Licence teach.	00	01	01	00	01	00	00
All institutes/beginners 1	Licence teach.	00	01	01	00	01	00	00
All institutes/beginners 2	Licence teach.	00	01	01	00	01	00	00
All institutes/beginners 3	Licence teach.	00	01	01	00	01	00	00

Table A.35 : It is about the teachers' background like: their degrees (question 5), the place where the degrees were obtained, in an English country or not (question 6), the use of the English language or not (question 7), and the kind of activity in which English is used, as in reading, publications, or in research (question 8).

Questions 9 and 10.

Institute	Teaching experience question 9		The students being taught question 10
	Speciality	English	
Physics	00	01	4 th
Electronics 1	00	02	4 th
Electronics 2	00	04	3 rd & 4 th
Biology 1	00	01	3 rd & 4 th
Biology 2	00	06	3 rd & 4 th
Biology 3	01	02	3 rd
Earth-Sciences 1	00	02	2 nd
Earth-Sciences 2	00	04	4 th
Earth-Sciences 3	00	04	2 nd
Earth-Sciences 4	00	02	3 rd & 4 th
Earth-Sciences 5	00	01	5 th
Computer-Sciences 1	00	04	4 th
Computer-Sciences 2	00	01	4 th
Computer-Sciences 3	00	05	3 rd & 4 th
Computer-Sciences 4	00	05	2 nd 3 rd & 4 th

Computer-Sciences 5	00	07	2 nd
Mathematics 1	00	02	2 nd 3 rd & 4 th
Mathematics 2	00	03	4 th
Mathematics 3	00	01	4 th
Chemistry 1	00	01	3 rd
Chemistry 2	11	03	4 th
Chemistry 3	05	05	4 th
Civil-engineering	07	04	5 th
Mechanical-engineering	03	02	5 th
Industrial-chemistry	06	03	3 rd & 4 th
All institutes /Post-G. 1	00	12	1 st year of P.G.
All institutes /Post-G. 2	00	01	1 st year of P.G.
All institutes/beginners 1	00	04	3 rd
All institutes/beginners 2	00	01	3 rd 4 th & 5 th
All institutes/beginners 3	00	01	3 rd 4 th & 5 th

Table A.36 : It is about the teaching experience of the teachers. It concerns the number of teaching years either in their subject of specialism, in teaching English, or in both modules (question 9), and the year of study of the learners being taught (question 10).

Questions 12, and 13: Are about the kind of texts the teachers work on (question 12), and whether subject courses as well as exercises constitute the basis for the course of English (question 13).

Institute	Question 12			Question 13	
	General	General Sc.	Technical	Yes	No
Physics	01	01	00	00	01
Electronics 1	00	01	00	00	01
Electronics 2	00	01	00	00	01
Biology 1	00	00	01	00	01
Biology 2	00	01	01	00	01
Biology 3	01	00	00	00	01
Earth-Sciences 1	00	01	00	00	01

Earth-Sciences 2	01	01	00	00	01
Earth-Sciences 3	01	01	00	00	01
Earth-Sciences 4	01	00	00	00	01
Earth-Sciences 5	01	00	01	00	01
Computer-Sciences 1	01	01	01	00	01
Computer-Sciences 2	00	00	01	00	01
Computer-Sciences 3	00	00	01	00	01
Computer-Sciences 4	01	01	01	00	01
Computer-Sciences 5	00	01	00	00	01
Mathematics 1	00	01	00	00	01
Mathematics 2	00	01	00	00	01
Mathematics 3	00	01	00	00	01
Chemistry 1	01	00	00	00	01
Chemistry 2	00	00	01	01	00
Chemistry 3	00	01	01	01	00
Civil-engineering	00	00	01	01	00
Mechanical-engineering	00	00	01	01	00
Industrial-chemistry	00	01	01	01	00
All institutes /Post-G. 1	01	01	00	00	01
All institutes /Post-G. 2	00	01	00	00	01
All institutes/beginners 1	01	01	00	00	01
All institutes/beginners 2	00	01	00	00	01
All institutes/beginners 3	00	01	00	00	01
Total	11	20	12	05	25

Table A.37 : It is about the kind of texts taught, i.e. whether they are general interest, general science, or technical texts (question 12), and about the use or not of the course of speciality as a basis of the course of English (question 13).

Question 14: It is about the aspects of language (represented in tables A.38A, A.38B) which are taught during the course of English, and their ranking from 1 to 5 following the priority they are assigned, number 1 representing the highest priority.

Institute	Oral Exp.					Written Exp.				
	1	2	3	4	5	1	2	3	4	5
Physics	00	00	01	00	00	00	00	00	00	01
Electronics 1	00	00	00	00	01	00	00	01	00	00
Electronics 2	00	00	00	00	01	00	00	00	01	00
Biology 1	00	00	00	01	00	00	00	01	00	00
Biology 2	00	01	00	00	00	00	00	01	00	00
Biology 3	00	00	00	01	00	00	00	01	00	00
Earth-Sciences 1	00	00	00	00	01	00	00	01	00	00
Earth-Sciences 2	00	00	00	00	01	00	00	01	00	00
Earth-Sciences 3	00	00	00	00	01	00	00	00	01	00
Earth-Sciences 4	00	01	00	00	00	00	00	00	01	00
Earth-Sciences 5	00	00	00	00	01	00	00	01	00	00
Comp-Sciences 1	00	00	01	00	00	00	00	00	01	00
Comp-Sciences 2	00	00	00	00	01	00	00	00	01	00
Comp-Sciences 3	00	00	00	00	01	00	00	01	00	00
Comp-Sciences 4	01	00	00	00	00	00	00	00	01	00
Comp-Sciences 5	00	00	00	00	01	00	00	00	01	00
Mathematics 1	00	00	01	00	00	00	01	00	00	00
Mathematics 2	00	00	01	00	00	00	00	00	00	01
Mathematics 3	01	00	00	00	00	00	00	01	00	00
Chemistry 1	00	00	00	01	00	00	00	01	00	00
Chemistry 2	00	00	00	00	01	00	00	01	00	00
Chemistry 3	00	00	00	00	01	00	01	00	00	00
Civil-eng.	00	00	00	00	01	00	01	00	00	00
Mechanical-eng.	00	00	00	00	01	00	01	00	00	00
Indus-chemistry	00	00	00	01	00	00	01	00	00	00
All inst/Post-G. 1	00	00	00	00	01	00	01	00	00	00
All inst/Post-G. 2	00	01	00	00	00	00	00	00	00	01
All inst/beginners 1	00	00	00	00	01	00	00	01	00	00
All inst/beginners 2	00	00	00	01	00	00	01	00	00	00
All inst/beginners 3	00	00	01	00	00	00	00	00	01	00

Total	02	03	05	05	15	00	07	12	08	03
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Table A.38A : It is about the priority assigned to oral expression, and written expression during the course of English, according to the different teachers.

Institute	Reading Comp.					Listening Comp.					Grammar				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Physics	00	01	00	00	00	00	00	00	01	00	01	00	00	00	00
Electronics 1	00	01	00	00	00	00	00	00	01	00	01	00	00	00	00
Electronics 2	01	00	00	00	00	00	00	01	00	00	00	01	00	00	00
Biology 1	00	01	00	00	00	00	00	00	00	01	01	00	00	00	00
Biology 2	01	00	00	00	00	00	00	00	00	01	00	00	00	01	00
Biology 3	01	00	00	00	00	00	00	00	00	01	00	01	00	00	00
Earth-Sciences 1	01	00	00	00	00	00	00	00	01	00	00	01	00	00	00
Earth-Sciences 2	01	00	00	00	00	00	00	00	01	00	00	01	00	00	00
Earth-Sciences 3	01	00	00	00	00	00	00	01	00	00	00	01	00	00	00
Earth-Sciences 4	01	00	00	00	00	00	00	00	00	01	00	00	01	00	00
Earth-Sciences 5	01	00	00	00	00	00	00	00	01	00	00	01	00	00	00
Comp-Sciences 1	01	00	00	00	00	00	00	00	00	01	00	01	00	00	00
Comp-Sciences 2	00	01	00	00	00	01	00	00	00	00	00	00	01	00	00
Comp-Sciences 3	01	00	00	00	00	00	00	00	01	00	00	01	00	00	00
Comp-Sciences 4	00	01	00	00	00	00	00	00	00	01	00	00	01	00	00
Comp-Sciences 5	01	00	00	00	00	00	00	01	00	00	00	01	00	00	00
Mathematics 1	00	00	00	01	00	00	00	00	00	01	01	00	00	00	00
Mathematics 2	00	00	00	01	00	00	01	00	00	00	01	00	00	00	00
Mathematics 3	00	00	00	01	00	00	00	00	00	01	00	01	00	00	00
Chemistry 1	00	01	00	00	00	00	00	00	00	01	01	00	00	00	00
Chemistry 2	01	00	00	00	00	00	00	00	01	00	00	01	00	00	00
Chemistry 3	01	00	00	00	00	00	00	00	00	01	00	00	01	00	00
Civil-eng.	01	00	00	00	00	00	00	01	00	00	00	00	00	01	00
Mechanical-eng.	01	00	00	00	00	00	00	01	00	00	00	00	00	01	00
Indus-chemistry	01	00	00	00	00	00	00	01	00	00	00	00	00	00	01
All inst/Post-G. 1	01	00	00	00	00	00	00	00	01	00	00	00	01	00	00

All inst/Post-G. 2	00	00	00	01	00	00	00	01	00	00	01	00	00	00	00
All inst/beginners 1	00	01	00	00	00	00	00	00	01	00	01	00	00	00	00
All inst/beginners 2	00	00	01	00	00	00	00	00	00	01	01	00	00	00	00
All inst/beginners 3	01	00	00	00	00	00	00	00	00	01	00	01	00	00	00
Total	18	07	01	04	00	01	01	07	09	12	09	12	05	03	01

Table A.38B : It is about the priority assigned to reading comprehension, listening comprehension, and grammar, according to the teachers.

Question 15. It is about some vocabulary, and grammar components which are taught during the course of English. The results are presented in tables A.39A, and A.39B.

Institute	Vocabulary		General ideas
	Single words	Compounds	
Physics	01	01	00
Electronics 1	01	00	01
Electronics 2	01	01	00
Biology 1	01	00	01
Biology 2	01	01	01
Biology 3	01	00	01
Earth-Sciences 1	01	00	00
Earth-Sciences 2	01	01	01
Earth-Sciences 3	01	00	01
Earth-Sciences 4	01	00	00
Earth-Sciences 5	00	01	01
Computer-Sciences 1	01	00	00
Computer-Sciences 2	01	01	01
Computer-Sciences 3	01	00	01
Computer-Sciences 4	00	01	01
Computer-Sciences 5	00	01	00
Mathematics 1	01	00	00
Mathematics 2	00	01	01
Mathematics 3	01	00	00

Chemistry 1	01	00	01
Chemistry 2	01	01	01
Chemistry 3	00	01	00
Civil-engineering	01	00	01
Mechanical-engineering	01	00	01
Industrial-chemistry	00	00	01
All institutes /Post-G. 1	01	01	01
All institutes /Post-G. 2	00	01	01
All institutes/beginners 1	01	00	01
All institutes/beginners 2	01	01	01
All institutes/beginners 3	01	00	01
Total	23	14	21

Table A.39A : It is about the components focused on during the course of English, like vocabulary (a), and general ideas (c) put in this table for the sake of practicality.

Institute	Grammar components				
	Connectives	Passive Voice.	Quantity expression.	Comparison	Word Formation
Physics	01	01	00	01	00
Electronics 1	01	01	00	01	01
Electronics 2	01	01	01	01	00
Biology 1	01	01	00	01	00
Biology 2	01	01	01	01	01
Biology 3	00	01	01	00	00
Earth-Sciences 1	00	01	00	01	00
Earth-Sciences 2	00	01	00	00	00
Earth-Sciences 3	00	01	00	00	01
Earth-Sciences 4	00	00	00	00	00
Earth-Sciences 5	00	00	00	00	00
Computer-Sciences 1	00	01	01	00	00
Computer-Sciences 2	00	01	00	00	01

Computer-Sciences 3	00	00	00	00	00
Computer-Sciences 4	01	01	00	01	00
Computer-Sciences 5	01	01	00	00	01
Mathematics 1	00	00	01	00	00
Mathematics 2	01	01	00	00	00
Mathematics 3	00	01	00	00	00
Chemistry 1	00	00	00	00	00
Chemistry 2	01	01	01	01	01
Chemistry 3	01	01	00	00	00
Civil-engineering	01	01	01	01	00
Mechanical-engineering	00	00	01	00	00
Industrial-chemistry	00	01	01	01	00
All institutes /Post-G. 1	01	01	01	01	01
All institutes /Post-G. 2	01	01	00	00	00
All inst/beginners 1	01	00	00	00	00
All inst/beginners 2	00	00	01	00	00
All inst/beginners 3	00	01	00	01	00
Total	14	22	11	12	07

Table A.39B : It is about the grammar components taught during the course of English according to teachers.

Question 16 : is about the sub-skills which are practised during the course of English, according to the teachers .These sub-skills are: Reading and explaining the vocabulary in texts (a), reading and studying relations between the different parts of the text (b), reading and working oral summaries (c); reading and writing summaries (d), grammar exercises (e); writing sentences (f); writing paragraphs (g); preparing presentations (h), any other activity practised but not mentioned in the question (i) and here, teachers have to provide it as an open answer .

Institute	Sub-skills							
	a	b	c	d	e	f	g	h
Physics	01	00	01	00	01	00	00	00
Electronics 1	01	00	01	00	01	00	01	00

Electronics 2	01	00	00	00	01	01	00	00
Biology 1	01	00	01	00	00	01	00	00
Biology 2	01	00	00	00	01	00	00	00
Biology 3	01	00	01	00	00	00	00	00
Earth-Sciences 1	01	00	01	00	00	01	00	00
Earth-Sciences 2	01	00	01	00	00	01	00	00
Earth-Sciences 3	00	00	01	00	00	01	00	00
Earth-Sciences 4	01	00	01	00	00	01	00	00
Earth-Sciences 5	01	00	01	00	01	00	00	01
Computer-Sciences 1	00	00	01	00	01	00	00	01
Computer-Sciences 2	01	00	01	00	01	01	00	00
Computer-Sciences 3	01	01	01	00	01	01	00	00
Computer-Sciences 4	01	00	01	01	00	01	01	00
Computer-Sciences 5	01	00	01	00	01	00	00	00
Mathematics 1	01	00	01	01	01	00	00	00
Mathematics 2	01	00	01	00	00	00	00	00
Mathematics 3	01	00	01	00	01	01	00	00
Chemistry 1	01	00	00	00	01	01	00	00
Chemistry 2	01	00	01	00	01	01	00	00
Chemistry 3	01	00	00	00	00	01	00	00
Civil-engineering	01	00	01	00	00	01	00	00
Mechanical-engineering	01	00	01	00	00	01	00	00
Industrial-chemistry	01	00	01	01	01	01	00	01
All institutes /Post-G. 1	00	01	01	01	01	01	01	01
All institutes /Post-G. 2	01	00	01	00	01	01	01	00
All inst/beginners 1	01	00	00	00	01	00	00	00
All inst/beginners 2	01	00	00	00	01	01	00	00
All inst/beginners 3	01	00	00	00	01	01	00	00
Total	27	02	23	04	19	20	04	04

Table A.40 : The sub-skills which are practised during the course of English, according to the teachers.

Questions 17, and 18. The mode(s) of course evaluation like exams (question 17), and the most appropriate register of English for the students, according to the teachers (question 18) are presented in the table below.

Institute	17 :Course evaluation		18 :The appropriate register of English		
	a	b	a	b	c
Physics	01	00	00	00	01
Electronics 1	01	00	00	00	01
Electronics 2	01	00	00	01	00
Biology 1	01	00	00	00	01
Biology 2	01	00	00	01	00
Biology 3	01	00	01	00	00
Earth-Sciences 1	01	00	00	00	01
Earth-Sciences 2	01	00	00	01	00
Earth-Sciences 3	01	00	00	00	01
Earth-Sciences 4	00	01	00	00	01
Earth-Sciences 5	01	00	00	01	00
Computer-Sciences 1	01	00	00	00	01
Computer-Sciences 2	01	01	00	01	00
Computer-Sciences 3	01	00	00	00	01
Computer-Sciences 4	01	01	00	00	01
Computer-Sciences 5	01	00	00	00	01
Mathematics 1	00	01	00	01	00
Mathematics 2	01	00	00	00	01
Mathematics 3	01	01	00	00	01
Chemistry 1	01	00	00	00	01
Chemistry 2	01	00	00	00	01
Chemistry 3	01	00	00	00	01
Civil-engineering	01	00	00	00	01
Mechanical-engineering	01	00	00	01	00
Industrial-chemistry	01	00	00	01	00
All institutes /Post-G. 1	01	01	00	00	01

All institutes /Post-G. 2	01	00	00	00	01
All inst/beginners 1	01	00	00	00	01
All inst/beginners 2	01	00	00	00	01
All inst/beginners 3	01	00	00	00	01
Total	28	06	01	08	21

Table A.41 : It is about the kind of evaluation of the course of English practised by teachers (question 17), and the register of English considered by teachers as appropriate for their students (question 18).

Question 19. About the skills which students need to reinforce, with regard to their studies, according to teachers.

Institute	Listening				Oral expression				Written expression				Reading Comprehension			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Physics	00	00	01	00	00	01	00	00	00	00	00	01	01	00	00	00
Electronics 1	00	00	01	00	00	00	00	01	00	01	00	00	01	00	00	00
Electronics 2	00	00	00	01	00	00	01	00	00	01	00	00	01	00	00	00
Biology 1	00	00	00	01	00	00	01	00	01	00	00	00	00	01	00	00
Biology 2	00	00	01	00	00	01	00	00	00	00	00	01	01	00	00	00
Biology 3	01	00	00	00	00	01	00	00	00	00	01	00	00	00	00	01
Earth-Sciences 1	00	00	01	00	00	01	00	00	01	00	00	00	00	00	00	01
Earth-Sciences 2	00	01	00	00	00	00	00	01	00	00	01	00	01	00	00	00
Earth-Sciences 3	00	00	00	01	01	00	00	00	00	01	00	00	00	00	01	00
Earth-Sciences 4	01	00	00	00	00	00	01	00	00	01	00	00	00	00	00	01
Earth-Sciences 5	00	00	01	00	00	00	00	01	00	01	00	00	01	00	00	00
Computer-Sciences 1	00	00	00	01	00	00	01	00	00	01	00	00	01	00	00	00
Computer-Sciences 2	00	01	00	00	00	00	00	01	00	00	01	00	01	00	00	00
Computer-Sciences 3	00	00	00	01	00	00	01	00	00	01	00	00	01	00	00	00
Computer-Sciences 4	01	00	00	00	00	01	00	00	00	00	00	01	00	00	01	00
Computer-Sciences 5	00	00	01	00	00	00	00	01	00	01	00	00	01	00	00	00
Mathematics 1	00	00	00	01	00	00	01	00	00	01	00	00	01	00	00	00
Mathematics 2	01	00	00	00	00	00	00	01	00	00	01	00	00	01	00	00
Mathematics 3	00	00	01	00	00	01	00	00	00	00	00	01	01	00	00	00

Chemistry 1	00	01	00	00	00	00	00	01	00	00	01	00	01	00	00	00
Chemistry 2	00	00	00	01	00	01	00	00	01	00	00	00	00	00	01	00
Chemistry 3	00	00	01	00	00	00	00	01	00	01	00	00	01	00	00	00
Civil-engineering	00	00	01	00	00	00	00	01	00	01	00	00	01	00	00	00
Mechanical-engineer.	00	00	00	01	00	00	01	00	00	01	00	00	01	00	00	00
Industrial-chemistry	00	00	01	00	00	00	00	01	00	01	00	00	01	00	00	00
All institutes /Post-G. 1	00	00	01	00	00	00	00	01	00	01	00	00	01	00	00	00
All institutes /Post-G. 2	01	00	00	00	00	01	00	00	00	00	00	01	00	00	01	00
All inst/beginners 1	00	00	01	00	00	00	00	01	00	01	00	00	01	00	00	00
All inst/beginners 2	00	00	00	01	00	01	00	00	00	00	01	00	01	00	00	00
All inst/beginners 3	00	00	01	00	00	00	00	01	00	01	00	00	01	00	00	00
Total	05	03	13	09	01	09	07	13	03	16	06	05	21	02	04	03

Table A.42 : It is about the different skills ranked by the teachers according to their importance for their students, and the necessity of being reinforced.

Question 20. The activities which are the most appropriate to the students, according to the teachers. The results are presented in tables A.43A, A.43B, A.43C, and A.43D.

The different activities are :

- | | |
|--|---|
| (A) Listening comprehension | (B) Written expression |
| (a) Understand lectures in English | (a) Write subject-related reports and articles |
| (b) Understand subject-related conversations | (b) Take notes (lectures, conferences) . |
| (c) Understand general conversations . | (c) Write letters, fill in forms . |
| (d) Understand television programmes . | |
| (C) Oral expression | (D) Reading comprehension |
| (a) Take part in general conversations . | (a) Read subject-related literature (articles, books) |
| (b) Take part in subject-related conversations . | (b) Read general literature (magazines, newspapers) |
| (c) Present an oral report . | |

Institute	Listening comprehension (Skill A)			
	Activity a	Activity b	Activity c	Activity d
Physics	01	01	01	00
Electronics 1	01	01	01	00
Electronics 2	01	01	00	00
Biology 1	01	01	00	00
Biology 2	01	01	00	00
Biology 3	01	01	01	01
Earth-Sciences 1	01	01	01	00
Earth-Sciences 2	01	01	01	00
Earth-Sciences 3	00	01	01	00
Earth-Sciences 4	00	01	01	00
Earth-Sciences 5	01	01	00	00
Computer-Sciences 1	01	01	01	00
Computer-Sciences 2	01	01	01	00
Computer-Sciences 3	01	01	01	00
Computer-Sciences 4	01	01	01	00
Computer-Sciences 5	00	01	01	00
Mathematics 1	01	01	00	00
Mathematics 2	01	01	00	00
Mathematics 3	01	01	00	00
Chemistry 1	01	01	00	00
Chemistry 2	01	01	01	00
Chemistry 3	00	01	00	00
Civil-engineering	01	01	00	00
Mechanical-engineering	01	01	00	00
Industrial-chemistry	01	01	00	00
All institutes /Post-G. 1	01	01	01	00
All institutes /Post-G. 2	01	01	01	00
All inst/beginners 1	01	01	01	00
All inst/beginners 2	00	01	01	00
All inst/beginners 3	01	01	00	00

Total	25	30	17	01
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Table A.43A : The activities which are the most appropriate to the students, according to the teachers.

Institute	Written expression (Skill B)		
	Activity a	Activity b	Activity c
Physics	01	00	00
Electronics 1	01	01	00
Electronics 2	01	01	00
Biology 1	01	01	01
Biology 2	01	01	01
Biology 3	01	00	01
Earth-Sciences 1	01	01	00
Earth-Sciences 2	01	01	00
Earth-Sciences 3	01	00	00
Earth-Sciences 4	01	00	01
Earth-Sciences 5	01	01	00
Computer-Sciences 1	01	01	00
Computer-Sciences 2	01	01	00
Computer-Sciences 3	01	01	01
Computer-Sciences 4	01	01	01
Computer-Sciences 5	01	01	00
Mathematics 1	01	00	00
Mathematics 2	01	01	00
Mathematics 3	01	00	00
Chemistry 1	01	01	00
Chemistry 2	01	00	01
Chemistry 3	01	00	00
Civil-engineering	01	01	00
Mechanical-engineering	01	00	00
Industrial-chemistry	01	01	01
All institutes /Post-G. 1	01	01	01

All institutes /Post-G. 2	01	01	00
All inst/beginners 1	01	01	00
All inst/beginners 2	01	01	00
All inst/beginners 3	00	01	01
Total	29	21	10

Table A.43B.

Institute	Oral expression (Skill C)		
	Activity a	Activity b	Activity c
Physics	01	01	00
Electronics 1	01	01	00
Electronics 2	00	01	01
Biology 1	00	01	01
Biology 2	01	01	00
Biology 3	01	01	00
Earth-Sciences 1	01	01	00
Earth-Sciences 2	00	01	01
Earth-Sciences 3	00	01	01
Earth-Sciences 4	01	01	00
Earth-Sciences 5	01	01	00
Computer-Sciences 1	00	01	01
Computer-Sciences 2	01	01	00
Computer-Sciences 3	01	01	01
Computer-Sciences 4	01	01	01
Computer-Sciences 5	00	01	01
Mathematics 1	00	01	00
Mathematics 2	01	01	00
Mathematics 3	01	01	01
Chemistry 1	01	01	00
Chemistry 2	01	01	01
Chemistry 3	00	01	00
Civil-engineering	01	01	00

Mechanical-engineering	00	01	00
Industrial-chemistry	01	01	01
All institutes /Post-G. 1	01	01	01
All institutes /Post-G. 2	01	01	00
All inst/beginners 1	00	01	01
All inst/beginners 2	01	01	01
All inst/beginners 3	01	01	00
Total	20	30	14

Table A.43C.

Institute	Reading comprehension (Skill D)	
	Activity a	Activity b
Physics	01	01
Electronics 1	01	00
Electronics 2	01	01
Biology 1	01	00
Biology 2	01	01
Biology 3	01	00
Earth-Sciences 1	01	00
Earth-Sciences 2	01	00
Earth-Sciences 3	01	00
Earth-Sciences 4	01	01
Earth-Sciences 5	01	00
Computer-Sciences 1	01	00
Computer-Sciences 2	01	00
Computer-Sciences 3	01	01
Computer-Sciences 4	01	01
Computer-Sciences 5	01	01
Mathematics 1	01	00
Mathematics 2	01	01
Mathematics 3	01	01
Chemistry 1	01	01

Chemistry 2	01	01
Chemistry 3	01	00
Civil-engineering	01	00
Mechanical-engineering	01	00
Industrial-chemistry	01	01
All institutes /Post-G. 1	01	01
All institutes /Post-G. 2	01	01
All inst/beginners 1	01	00
All inst/beginners 2	01	01
All inst/beginners 3	01	00
Total	30	15

Table A.43D.

Questions 21, 22: The former is about whether teachers know about any objectives concerning the module of English, and coming from the Ministry of Higher Education and Scientific Research; while the latter (question 22) is about stating those objectives in case they exist.

Institute	Question 21		Question 22
	Yes	No	
Physics	00	01	
Electronics 1	00	01	
Electronics 2	00	01	
Biology 1	00	01	
Biology 2	00	01	
Biology 3	00	01	
Earth-Sciences 1	00	01	
Earth-Sciences 2	00	01	
Earth-Sciences 3	00	01	
Earth-Sciences 4	00	01	
Earth-Sciences 5	00	01	
Computer-Sciences 1	00	01	
Computer-Sciences 2	00	01	

Computer-Sciences 3	00	01	
Computer-Sciences 4	00	01	
Computer-Sciences 5	00	01	
Mathematics 1	00	01	
Mathematics 2	00	01	
Mathematics 3	00	01	
Chemistry 1	00	01	
Chemistry 2	01	00	Terminology
Chemistry 3	01	00	Terminology
Civil-engineering	01	00	Terminology
Mechanical-engineering	01	00	Terminology
Industrial-chemistry	01	00	Terminology
All institutes /Post-G. 1	01	00	Terminology
All institutes /Post-G. 2	00	01	
All inst/beginners 1	00	01	
All inst/beginners 2	00	01	
All inst/beginners 3	00	01	
Total	06	24	

Table A.44 : It is about whether teachers know or not about any official objectives(21). Then, if it is the case, they should describe them (22).

Questions 25, 26: They concern the amount of instruction in English, whether it is sufficient or not (question 25), and the suggestion of an amount of instruction (question 26).

Institute	Question 25		Question 26		
	Yes	No	2 to 4 hours	4 to 6 hours	6 to 8 hours
Physics	00	01	01	00	00
Electronics 1	00	01	01	00	00
Electronics 2	00	01	01	00	00
Biology 1	00	01	01	00	00
Biology 2	00	01	00	01	00
Biology 3	00	01	01	00	00

Earth-Sciences 1	00	01	00	01	00
Earth-Sciences 2	00	01	01	00	00
Earth-Sciences 3	00	01	01	00	00
Earth-Sciences 4	00	01	01	00	00
Earth-Sciences 5	01	00	00	00	00
Computer-Sciences 1	00	01	01	00	00
Computer-Sciences 2	00	01	00	01	00
Computer-Sciences 3	00	01	01	00	00
Computer-Sciences 4	00	01	00	00	01
Computer-Sciences 5	00	01	00	01	00
Mathematics 1	00	01	00	01	00
Mathematics 2	00	01	01	00	00
Mathematics 3	00	01	01	00	00
Chemistry 1	00	01	01	00	00
Chemistry 2	00	01	01	00	00
Chemistry 3	00	00	01	00	00
Civil-engineering	00	01	01	00	00
Mechanical-engineering	00	01	01	00	00
Industrial-chemistry	00	01	01	00	00
All institutes /Post-G. 1	00	01	01	00	00
All institutes /Post-G. 2	00	01	01	00	00
All inst/beginners 1	00	01	00	01	00
All inst/beginners 2	00	01	01	00	00
All inst/beginners 3	00	01	01	00	00
Total	01	28	22	06	01

Table A.45 : whether the amount of instruction in English is sufficient or not (25), and the suggestion of an amount of instruction (26).

Questions 27, 28: They are about the existence or not of any collaboration between language and subject-matter teachers (question 27), and whether such a collaboration is wished or not (question 28).

Institute	Question 27		Question 28	
	Yes	No	Yes	No
Physics	00	01	01	00
Electronics 1	00	01	01	00
Electronics 2	00	01	01	00
Biology 1	00	01	01	00
Biology 2	00	01	00	01
Biology 3	00	01	01	00
Earth-Sciences 1	00	01	01	00
Earth-Sciences 2	00	01	01	00
Earth-Sciences 3	00	01	01	00
Earth-Sciences 4	00	01	01	00
Earth-Sciences 5	00	01	00	01
Computer-Sciences 1	00	01	01	00
Computer-Sciences 2	00	01	01	00
Computer-Sciences 3	00	01	01	00
Computer-Sciences 4	00	01	01	00
Computer-Sciences 5	00	01	01	00
Mathematics 1	00	01	01	00
Mathematics 2	00	01	01	00
Mathematics 3	00	01	01	00
Chemistry 1	00	01	01	00
Chemistry 2	00	01	01	00
Chemistry 3	00	01	01	00
Civil-engineering	00	01	01	00
Mechanical-engineering	00	01	01	00
Industrial-chemistry	00	01	01	00
All institutes /Post-G. 1	00	01	01	00
All institutes /Post-G. 2	00	01	00	01
All inst/beginners 1	00	01	01	00
All inst/beginners 2	00	01	01	00

All inst/beginners 3	00	01	01	00
Total	00	30	27	03

Table A.46 : It is about co-operation between English language teachers, and subject-matter teachers ; whether this co-operation exists or not (question 27), and whether both types of teachers agree on it (question 28).

APPENDIX B :The teachers' questionnaire

QUESTIONNAIRE DESTINE AUX ENSEIGNANTS

(Par Mme S. Lahdiri-Ouyed)

Ce questionnaire s'inscrit dans le cadre d'une recherche dont l'objet est de déterminer les besoins des étudiants de l'USTHB en langue anglaise. Les renseignements resteront confidentiels et ne serviront que pour cette recherche. Nous vous remercions d'avance pour votre aide qui sera très appréciée.

1- Institut:.....

2- Sexe: F M

3- Age: 25-34 ans 35-44 ans 45 ans et plus

4- Quel est votre statut d'enseignant ?

Vacataire Enseignant à plein temps Enseignant
associé

5- Diplôme(s):.....

6- Lieu d'obtention: Pays anglophone? Oui Non

Si oui, lequel ?.....

7- Utilisez--vous la langue anglaise actuellement?

Oui Non

8- Si c'est oui, comment?

Lectures Publications Recherche

Autre:.....

9- Depuis combien d'années enseignez-vous?

Le module de spécialité:..... Le module d'Anglais :.....

10- Si vous enseignez l'Anglais, en quelle année du cursus l'enseignez-vous ?

.....

11- Si vous enseignez l'Anglais, sur quels ouvrages travaillez-vous ? (indiquez les références s.v.p.)

.....

....

.....

....

.....

....

.....
....
12- Si vous travaillez sur des textes, de quels textes s'agit-il? (indiquez les références si possible s.v.p.).

a) textes d'ordre général

.....
....
b) textes de vulgarisation (general science)

.....
....
c) textes relatifs à la spécialité (Technical textes)

.....
....
13- Travaillez vous sur des cours et exercices de la spécialité en Anglais ?

oui non

14- Quel(s) aspect(s) de la langue enseignez - vous? classez-les selon la priorité que vous leur accordez: '1', '2',... (le chiffre '1' représentant l'aspect le plus important).

- a) Expression orale b) Expression écrite
c) Compréhension de textes (lecture) d) Compréhension auditive (l'écoute)
e) Grammaire

15- Pendant les séances de lecture de textes ou articles, sur quel(s) aspect(s) insistez-vous pour la compréhension ?

- a) Vocabulaire → noms communs (individual words)
→ noms composés (compounds)
b) Tournures grammaticales → locutions conjonctives (connectives)
→ voix passive
→ expressions de mesure
→ comparatifs
→ formation des mots
c) Idées générales
d) Autre

16- Quelles sont les activités que vous pratiquez pendant le cours ?

- a) Lecture de texte puis explication du vocabulaire
b) Lecture puis étude des relations entre les différentes parties du texte
c) Lecture de texte puis résumé oral du contenu
d) Lecture de texte puis résumé écrit du contenu
e) Exercices d'application des règles grammaticales
f) L'écriture de phrases
g) L'écriture de paragraphes
h) Exposés
i) Autre

17- Comment évaluez-vous votre enseignement?

a) Examens

b) Lectures de documents en Anglais autre que les textes étudiés pendant les cours

Autre:.....

18- Quel type d'enseignement d'Anglais jugez-vous le plus approprié à vos étudiants?

Anglais général Anglais relatif à la spécialité Les deux

19- Dans quels domaines, les étudiants ont-ils besoin de renforcer leurs connaissances en Anglais dans le cadre de leurs études? Classez-les selon leur importance: '1', '2',... le chiffre 1 correspondant à l'objectif le plus important .

a) Compréhension auditive (l'écoute) b) Expression orale

c) Expression écrite d) Compréhension de textes (lecture)

20- Quelles sont les activités relatives aux cours d'Anglais, les mieux adaptés aux étudiants dans le cadre de leurs études de spécialité.

A) Compréhension auditive (l'écoute)

a) Comprendre des cours d'Anglais

b) Comprendre des conversations en Anglais relatives à leur spécialité

c) Comprendre des conversations d'ordre général en Anglais

d) Comprendre des programmes de T.V. (informations, films, chansons)

Autre:.....

B) Expression écrite:

a) Ecrire des rapports, articles relatifs à leur spécialité

b) Prendre des notes (Cours, Conférences)

c) Rédiger des lettres, remplir des formulaires

Autre:.....

C) Expression orale.

a) Participer à des discussions d'ordre général

b) Participer à des discussions relatives à leur spécialité

c) Présenter un rapport oral (communication)

Autre:.....

D) Compréhension de textes (lecture).

a) Lire tout ce qui est relatif à la spécialité (livres, Articles)

b) Faire des lectures d'ordre général (journaux, revues, lettres)

Autre:.....

21- Savez-vous s'il y a des objectifs pédagogiques officiels concernant le module d'Anglais(établis par l'administration et le M.E.S.) ?

Oui

Non

22- Si oui, quels sont ces objectifs ?

.....
.....
.....
.....

23- Quels sont vos propres objectifs concernant le module d'Anglais?

.....
.....
.....
.....
.....

24- Ces objectifs ont-ils été établis:

a) Suite à une réflexion personnelle b) Après concertation avec d'autres enseignants

Autre:.....

25- Pensez-vous que le volume horaire du module d'Anglais est suffisant?

Oui Non

26- Quel est le volume horaire hebdomadaire que vous suggérez:

2- 4 4- 6 6- 8

27- Est-ce qu'il existe une collaboration entre enseignants de la spécialité et enseignants de la langue anglaise (de formation littéraire)?

Oui Non

28- Est-il souhaitable d'organiser conjointement (enseignants de la spécialité et enseignants de formation littéraire) le cours d'Anglais ?

Oui Non

29- Si oui, de quelle façon ?

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

30- Autres suggestions concernant l'enseignement d'Anglais (méthodes, documents.....).

<u>graduation</u>	<u>Graduation</u>	<u>Post-</u>
A) Anglais général	<input type="checkbox"/>	<input type="checkbox"/>
B) Anglais scientifique de vulgarisation	<input type="checkbox"/>	<input type="checkbox"/>
C) Anglais de spécialité (technique)	<input type="checkbox"/>	<input type="checkbox"/>

9- Quel(s) aspect(s) de la langue étudiez-vous pendant le cours d'Anglais?

<u>graduation</u>	<u>Graduation</u>	<u>Post-</u>
a) Grammaire →	<input type="checkbox"/>	<input type="checkbox"/>
b) Expression orale	<input type="checkbox"/>	<input type="checkbox"/>
c) L'écoute (listening)	<input type="checkbox"/>	<input type="checkbox"/>
d) L'écriture	<input type="checkbox"/>	<input type="checkbox"/>
e) Lecture	<input type="checkbox"/>	<input type="checkbox"/>

10- Quelles sont les activités que vous pratiquez pendant le cours d'Anglais?

<u>graduation</u>	<u>Graduation</u>	<u>Post-</u>
a) Lecture puis explication du vocabulaire <input type="checkbox"/>		<input type="checkbox"/>
b) Lecture puis étude des relations entre les différentes parties du texte <input type="checkbox"/>		<input type="checkbox"/>
c) Lecture de textes puis résumé oral du contenu. <input type="checkbox"/>		<input type="checkbox"/>
d) Lecture de textes puis résumé écrit du contenu <input type="checkbox"/>		<input type="checkbox"/>
e) Exercices d'application des règles grammaticales <input type="checkbox"/>		<input type="checkbox"/>
f) L'écriture de phrases <input type="checkbox"/>		<input type="checkbox"/>
g) L'écriture de paragraphes <input type="checkbox"/>		<input type="checkbox"/>
h) Exposés <input type="checkbox"/>		<input type="checkbox"/>
i) Autre:.....		

11 Mis à part le fait d'avoir un cours d'anglais obligatoire, avez-vous d'autres raisons pour l'apprentissage de la langue anglaise?

a) C'est indispensable (pour les études...)	<input type="checkbox"/>
b) C'est utile (voyages...)	<input type="checkbox"/>
c) Autres raisons :	

12- Comment procédez-vous dans vos lectures en anglais, en général? (tout ce que vous lisez en anglais même pour vos cours de spécialité).

- a) Vous essayez de comprendre tous les termes que vous ne connaissez pas
- b) Vous essayez de comprendre d'abord l'idée ou les idées générales
- c) Avez-vous d'autres stratégies pour lire?.....
-

13- Quel type d'enseignement d'anglais préférez-vous?

- | | <u>Graduation</u> | <u>Post-</u> |
|---------------------------------------|--------------------------|--------------------------|
| <u>graduation</u> | | |
| a) Anglais général | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Anglais relatif à votre spécialité | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Les deux | <input type="checkbox"/> | <input type="checkbox"/> |

14- Dans quel(s) domaine(s) avez-vous besoin de renforcer vos connaissances en anglais dans le cadre de vos études. Les classer de '1' à '4', '1' étant le plus important.

- | | |
|--------------------------------------|--------------------------|
| a) Compréhension auditive (l'écoute) | <input type="checkbox"/> |
| b) Expression orale | <input type="checkbox"/> |
| c) Expression écrite | <input type="checkbox"/> |
| d) Compréhension de textes (lecture) | <input type="checkbox"/> |

15- Quelles sont les activités relatives au cours d'anglais, les plus appropriées à vos études de spécialité.

A) Compréhension auditive (l'écoute):

- | | |
|---|--------------------------|
| a) Comprendre des cours en anglais | <input type="checkbox"/> |
| b) Comprendre des conversations relatives à la spécialité | <input type="checkbox"/> |
| c) Comprendre des conversations d'ordre général | <input type="checkbox"/> |
| d) Comprendre des programmes de T.V. | <input type="checkbox"/> |
| e) | |
| Autre:..... | |

B) Expression écrite:

- | | |
|---|--------------------------|
| a) Ecrire des rapports, articles relatifs à la spécialité | <input type="checkbox"/> |
| b) Prendre des notes (cours, conférences) | <input type="checkbox"/> |
| c) Rédiger des lettres, remplir des formulaires | <input type="checkbox"/> |
| d) Autre :..... | |

C) Expression orale:

- | | |
|---|--------------------------|
| a) Participer à des discussions d'ordre général | <input type="checkbox"/> |
| b) Participer à des discussions relatives à la spécialité | <input type="checkbox"/> |
| c) Présenter un rapport oral (communication) | <input type="checkbox"/> |
| d) Autre :..... | |

D) Compréhension de textes (lecture):

- | | |
|--|--------------------------|
| a) Lire tout ce qui est relatif à la spécialité (livres, articles) | <input type="checkbox"/> |
| b) Faire des lectures d'ordre général (revues, lettres, journaux) | <input type="checkbox"/> |
| c) Autre :..... | |

16- Pensez-vous que le volume horaire consacré au module d'anglais est suffisant?

- oui non

17- Si non, quel est le volume horaire hebdomadaire que vous suggérez?

1) 2-4

2) 4-6

3) 6-8

18- Avez-vous des suggestions concernant les cours d'anglais en général? (méthodes, textes, différentes activités....). Si oui, lesquelles?

.....
.....
.....
.....