

Syllabus Planning in English for the Health Sciences.

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In recent years much thought has been given to discussing issues on the subject of English for Specific Purposes (ESP) within the general context of teaching English as a second language. One of the consequences has been the convergence of teaching efforts on the students' needs analysis as an indispensable step towards syllabus planning and elaboration. Literature on the subject demonstrates that it is imperative to talk about needs analysis when faced with any specific student group. After all, ESP is based fundamentally upon the designing of specific courses to meet specific learners' needs, and more concretely specific language learning needs.

The history of ESP originates in a series of converging trends. It does not necessarily constitute a movement, however, and authors have identified some specific stages (cf. Hutchinson and Waters 1987: 9-14 for a brief historical review; see also Waters 1988: 27-35).

During the 1960s and early 1970s, several important steps have marked the short history of ESP. First, with the concept of ESP as a special language register (i.e., specific registers for different disciplines), developed by Peter Strevens (Halliday, McIntosh and Strevens 1964) and John Swales (1971), among others. Strevens (1977) also introduced the distinction between English for Occupational and Academic Purposes (EOP/EAP).

In the mid 1970s Allen and Widdowson (1974), in what may be called a second stage, worked on rhetorical and discourse analysis, while the target situation analysis constituted a third basic stage with the emergence of the so-called Munby (1978) model.

Although in the first two stages of development of ESP the analysis had focused on external forms of language (sentence, register, discourse), John Munby's approach did not really change this emphasis, since in the needs survey we still look at the surface linguistic features of the target situation.

At this point, we may single out Janice Yalden's 'balanced or proportional approach' (Yalden 1983 and 1987). She insisted on the fact that, method concept having failed, the needs survey -much in line with Munby's model- leading to an appropriate syllabus type is the best guidance for the learner. Thus she proposes a 'proportional approach', through which she tries to cope with specific situations. According to her, this approach would "allow the syllabus designer the most freedom to respond to changing or newly-perceived needs in the learners, and at the same time provide a framework for the teacher who may not be able or willing to 'go fully communicative' and enter the classroom with nothing save a collection of authentic material" (Yalden 1983: 120).

In a fourth stage, nevertheless, an attempt was made to look beneath linguistic features of the target situation and experts began to take into consideration the thinking processes that underlie language use. Finally we come to the 'learning-centred approach', developed by Hutchinson and Waters (1987), in which the main concern is language *learning*, and it constitutes a fifth stage.

Through these pages, while briefly expounding on the experiences of other authors, we hope to offer our own teaching ideas based upon a reflection of today's importance of English in health science studies, along with a review of our Spanish setting and what the recent university reform has meant to them. Among other aspects, we shall analyze the type of L2 materials our students and future professionals must cope with, all of it as important considerations aimed at syllabus planning. In this analysis we shall stress the importance of

materials selection, based upon a previous needs analysis, and also teacher preparation in terms of being able to work with these texts in class. Finally, and within classroom activities in general, we shall suggest that translation, viewed from a subjective needs standpoint and used adequately, has an important role to play in our teaching activity.

ENGLISH AND HEALTH SCIENCE CAREERS

In today's world, science *speaks* English, and specifically biomedical sciences. It has been shown that the language of most of today's medical literature is English (cf. Maher 1987 and Villar 1988). Since the 1960s, there has been a steady increase of biomedical articles published in English. Maher studied world trends by means of a computerized analysis of over one million articles from biomedical journals through the 'Medline' storage system over a fifteen-year period (1966-1980). He found that the number of articles published in English had steadily increased from 53.3% of the total volume of articles published in 1966 to 72.2% in 1980 (Maher 1987: 13). We feel that this fact alone should be sufficient as a first important consideration, both for the Spanish student in biomedical studies faced with the selection of a foreign language course, as well as for the ESP professor in terms of materials selection and syllabus design.

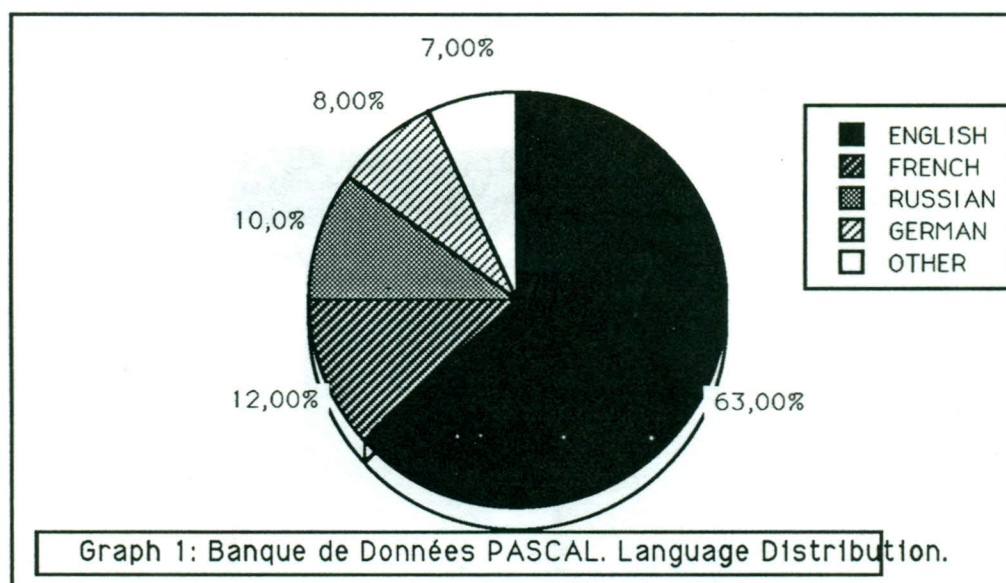
There are numerous bibliographical 'repertoires' in the world, many of which are electronic databases (Williams 1985): *Index Medicus*, *Biological Abstracts*, *Excerpta Medica*, etc., are known worldwide. The *Index Medicus*, for instance, with its informatics based 'Medline', analyzes over 4300 professional journals all over the world and approximately 70% of the essays are abstracted in English. Furthermore, the vast majority of registered articles has been published originally in English. In a bibliographical search we carried out through this 'repertoire', on several selected topics, of articles which appeared in 1989, the results obtained (shown in Table 1), are self-evident and need no further comment. Although

TABLE 1.

LISTED ARTICLES

HEADING	ENGLISH %		OTHER LANG %	
Athletic Injuries	334	72.3	128	27.7
Nurses	127	94.8	7	5.2
Nursing	82	96.5	3	3.5
Nursing Assessment	72	98.6	1	1.4
Nursing Care	76	89.4	9	10.6
Physical Therapy	136	65.1	73	34.9
TOTALS 827	78.9	221	21	1

this is a very partial analysis, it maintains the steady increase in English publications reported by Maher (1987). It might be objected, however, that this should be taken as normal, since this is a US-based bibliographical *corpus*. Nevertheless, these percentages are maintained when one takes a look, for instance, at the 'Banque de Données PASCAL', which originates in France. Although French is the language employed in its summaries and descriptions, the language distribution of articles revised is also quite significant (see Graph N° 1).



When faced with the problem of publishing the results of their research and investigation, Spanish professionals in the health sciences -whether for reasons of prestige, quality of publication or whatever- send their written results to professional journals known for their scientific reputation: according to Terrada (1981: 181, with data concerning the period 1973-1977), 76.2% of the articles written with this idea in mind are published in English. It is also a fact, however, that these articles are generally rendered into English by specialized translators, or at least 'proof-read' by them (Sans Quintero 1990: 27).

1. Spanish University Reform and Curricula.

The proposed Spanish reform of university studies, apart from fostering the learning/acquisition of foreign languages in general, has nothing to say about 'foreign languages for specific purposes', and government officials have ignored all aspects other than emphasizing the importance of foreign language acquisition for all students. However, according to a very recent decree, published in the official Spanish government bulletin (*Boletín Oficial del Estado*, 8/30/1990: 25506-09), the Ministry of 'Sanidad y Consumo' gives no credit whatsoever to the fact that the health personnel being hired (physicians, nurses and physiotherapists) may have taken foreign languages as part of their university studies, besides the regular courses related to their health studies. This is indeed an important 'step backwards', specially in terms of the recently proposed reform of university studies, advocated by the Ministry of Education. There seems to be an important 'communication gap' among different Spanish Ministries. The education reform, however, has shed some new light and broadened the perspectives in health science studies with regard to elective courses, foreign language being one of them.

The projects that have been proposed within different university centers are quite varied: some would propose that English be obligatory for all technical and health science careers (some of our university centers do not even consider having it in their curricula), with a duration ranging from 1 to 3 years; while others would prefer to offer English as an optional course, which more often than not means to remain as it has been up to now in some centers (often with one single hour per week of instruction), jestingly referred to as a 'maría'. Up to now, some positive steps in the teaching of LSP have been taken in some technical and business schools around Spain, but we feel that in most university centers where health science studies are being offered this has not been the case. Actually, where English (or another foreign language) is offered as part of their curriculum, little if no consideration is given to its ESP content and it is simply taught in terms of general English. University schools and faculties, technical and non-technical, are now gathering all the information so that through their individual boards of direction a most convenient and adequate decision can be arrived at.

From a survey we carried out within the Universities of València and Alacant (Spain), during the 1988-1989 school term, among health professionals, both teaching ($n = 36$) and non-teaching ($n = 98$) professionals, and

also among students in health science studies ($n = 296$), we obtained some interesting data. Among professionals, and to the question whether or not they thought English should be obligatory for all students in health sciences, 58.3% of teaching professionals and 63% of non-teaching professionals thought it should be obligatory, while the rest answered that it ought to be considered an elective course.

These answers seem to disfavor in fact what we might have expected, but the existing supernumerary Spanish university class groups might call precisely for such results. Nevertheless, there is no question about what both, professionals and students alike, think in regard to English as a vehicle for international communication, especially in health sciences.

Two things remain true, however, and must be taken into serious consideration: first, that English, as a necessary communication tool in today's world of scientific research and investigation, whether as an obligatory or an elective course, must be given adequate linguistic content; and second, that according to most educators three years of foreign language instruction are adequate to produce positive results, while at the same time the ideal number of teaching hours per week should be about 4-5. Below this rate of intensity, these courses have proven to be "notoriously ineffective" (Stevens 1977: 29). We should consequently strive towards incorporating these ideas into the discussion which is taking place within our teaching institutions.

2. Subjective Needs Analysis: the Health Student and Professional.

In the above-mentioned survey one important aspect stood out among all other considerations: the interest shown by all subjects in the English language. On the one hand, among professionals involved in some kind of teaching and/or research activity, those who hold higher degrees (masters and doctors) feel as a whole (100% of subjects surveyed) that English is absolutely *indispensable* for their professional activity. On the other hand, in most subjects of the survey a great frustration was detected, due to a rather generalized, inadequate knowledge of English, especially acute among those who lack a minimum reading mastery to be able to carry out a bibliographical search in the field of their speciality. This frustration obviously produces great discouragement when they must meet, at symposia, congresses, etc., professionals and colleagues of other nationalities where English has 'already' become a true vehicle of scientific communication and development.

In our field of activity it is difficult to ascertain students' needs and aims in terms of EAP or EOP, or even perhaps 'EEExP' -English for Examination Purposes, as Coffey (1985: 80) calls it. Their immediate interest seems to be purely academic (EAP), while later it will be -at least at times- occupational (EOP); but we must analyze these needs from other points of view, and what importance this distinction may bear on our teaching specificity.

TABLE 2.

LANGUAGE	NUMBER	%
English	25	48.1
Spanish	20	38.5
French	3	5.8
Catalan	2	3.8
Portuguese	2	3.8
TOTALS	52	100

As far as students, their classwork and materials are concerned, we must say something about the type of bibliographical material they have at hand, and we shall do this by taking a look at one of our university

centers. At our twelve-year old School of Nursing (University of València), with an enrollment of just over 500 students, there is a small library for faculty and student use with 3394 bibliographical titles, 485 of which are books in English, that is, 14.3%. This percentage is even higher when we look at the professional journals the center subscribes to (most of them specifically on nursing science, and the rest on medicine and allied sciences): the library receives fifty-two journals with the language distribution shown in Table 2.

From the point of view of a university center in a Spanish-speaking country, the number of journals received in English could be considered excessive. However, it is not only a reflection of what we said about today's

language of health sciences, but also of what faculty members have expressed as being adequate bibliographical material for student use.

Furthermore, some of the 20 journals published in Spanish would not really pass a scientific quality test, since they are simply bulletins, disguised in magazine format, of local nurses' associations.

In spite of this abundance of English literature, however, the library movement of such material has been practically nil in the past, except for bilingual dictionaries and general English readers -which is simply a reflection of the language level of its users. A sample control was carried out at the libraries within the Schools of Nursing and Physiotherapy (University of València), from April 15 to May 14 1990, in regard to English material (including bilingual dictionaries) used by library visitors: the result was quite discouraging since, in spite of the fact that many students had course projects due in English, it did not reach 10% of the total output during that month.

Another important aspect to be considered is the students' future work as health professionals, whether they be physicians, nurses or physiotherapists. Their foreign language needs will basically be occupational (EOP), especially those who will be hired to work in heavy touristic areas (such as our Mediterranean coast), otherwise -mainly in terms of keeping up-to-date with today's medical literature, or simply continuing some kind of research or investigation- they will be academic (EAP). But in spite of this, often enough 'general English' will suffice. To this effect, John H. Dirckx (1986: 43), referring to the vocabulary used by doctors at work -applicable to most health professionals-, has this to say: "Only a small percentage of the physician's working vocabulary consists of medical terminology properly so called, since most of the words he uses in speaking and writing about technical subjects are just ordinary English". Indeed, most of health professionals' L2 needs will refer to the strictly human side of their professional activity, such as the initial steps for a hospital admission, simply asking a patient how he feels or whether he's comfortable or not in his hospital room; also gathering information to open a case history, and so on.

We feel, therefore, that it is not that important the consideration whether it is EAP or EOP, since both are interrelated, and in health sciences there is no clear-cut distinction between the two. In most cases, however, our classroom activity will be around EAP texts. It is also true that, within our fields of study, "people can work and study simultaneously; it is also likely that in many cases the language learnt for immediate use in a study environment will be used later when the student takes up, or returns to, a job" (Hutchinson and Waters 1987: 16). Furthermore, much of it will depend on whether we are dealing with the biological or sociological 'side' of medical sciences, a distinction which should be kept in mind to detect how much ESP lexis a given text contains.

Present language needs, therefore, do not necessarily coincide with future language needs, but they are interrelated. In university studies, such as Nursing or Physiotherapy, and especially in longer careers as in Medical or Biological studies, learners are required to carry out bibliographical searches, both in local as well as in foreign literature; later, as professionals, they will often find themselves exploring the literature of their speciality for a research project or simply keeping up-to-date.

This situation, which places a heavy accent on student needs analysis, calls for a restating of our syllabus. Our student and future professional expects from us more than what we have been offering, and in our restating the program we feel there must be a wider and better use made of translation.

TRANSLATION AND SYLLABUS PLANNING

1. Needs Analysis and Available Materials.

Our students have a very diversified level of L2 (English), most of them a low intermediate level, and some have no knowledge of English at all (they have probably taken French in secondary school). When they enroll in an ESP course, their immediate needs and aims focus mainly on the interpretation of texts in their field of study, basically recent publications and their abstracts, book reviews, letters appearing in journals, interpretation of reports and equipment instructions, including technical abbreviations, and so on. They wish to acquire, above all, certain reading skill of subject-specific texts, and ultimately a linguistic autonomy which will allow them to explore biomedical literature in their originals without serious difficulty. Figueiredo *et al.* (1988: 64) have also pointed this need out after analyzing the results obtained from a questionnaire distributed among professionals at the Universidade Federal de Uberlândia (Brazil). According to their findings, the main objective of those professionals was 'reading for academic purposes'.

A demand such as this inevitably leads to an in-depth analysis of the type of material learners should receive in classroom. We must then concentrate on how we are going to make it available to them in terms of 'comprehension', by way of adequate classroom activities and exercises through which they will be prepared to face more complicated texts.

There are not that many adequate textbooks on the market for the teaching of English in the field of health sciences, and those have been criticized, not only by subject-specialists but also by language teachers and linguists in general, and this to the point that some have even said that most passages contained in such textbooks are not "instances of real scientific communication" (Bhatia 1986: 50). This author, however, who draws his conclusions from his ESP teaching experience to law students (EALP, or English for Academic Legal Purposes), has come up with what he calls 'easification procedures' applied to 'real authentic texts' in order to convert them into 'simplified subject-specific texts' (Bhatia 1986: 50-51). Based upon this material, he would construct his course design. Dr. Adams Smith also speaks about those who have suggested the use of 'popularized versions' of research papers. He says, however, that while on the one hand they are 'generally inconsistent' and 'seldom appropriate' for the student, on the other, he feels "they may have a use for the ESP teacher without a scientific background, in that they can provide a point of access to the source paper". However, he also warns the teacher who uses them to be aware of "errors, oversimplifications, a different focus and emphasis, and omissions and misprints" (Smith 1988: 16).

Medical literature in English, as we have already pointed out, can be found everywhere, but it is also true that most learners, even those with a good reading command of English, are not prepared to face such texts. Our role as ESP teachers becomes really meaningful in this respect, since the design of an adequate syllabus to help them acquire that reading mastery depends on us. Based on a good selection of materials, the syllabus must be conducive to student interest and motivation in such a way that their present classwork not only contributes to document learners scientifically, but also provides them the linguistic autonomy they are after. In this respect, the multidisciplinary teamwork we have put into practice has been really successful. This has been especially so in terms of recent changes in student attitude towards ESP courses. The most tangible result from this experience has been the change from a rather 'passive attitude' to language teaching on the students' part to a real active role and personal involvement. Language teaching has then become, not a goal in itself, but a true vehicle of communication. It is then most effective when the student himself is able to communicate a specific message, when he can produce a report of his findings.

We have often asked ourselves, however, the question of whether the materials we provide for classwork must be of a very specialized nature so as to produce the expected results. We think the answer must be negative -especially when students first approach ESP. And we feel it must be so, not only because some experts on the subject have already mentioned it, but also because we have experienced this in our own 'testing ground', the classroom. Bhatia (1986: 60), however, would propose a strict use of materials with 'subject-specific content', but with the participation, when necessary, of the subject teacher to solve subject-related problems. But this also entails a difficulty if this team-teaching is not well organized and implemented.

According to Bhatia, as we move to 'higher levels' of science and technology, "most native speakers will find it very difficult to cope with the flow of new information if they have no access to the specific linguistic conventions commonly available to the specialists in that particular specialist discipline" (Bhatia 1986: 49). But in spite of someone using texts that have gone through Bhatia's 'easification procedures', he still insists on the need of specialized ESP teachers: "As ESP practitioners, we need to develop a fair amount of interest, awareness and have willingness to do some research in the specialist discipline that we want to be able to serve, and it is difficult, if not impossible, to be able to do that without a great deal of effort" (Bhatia 1986: 52). Joan and Richard Allwright (1977: 62), after years of experience in teaching 'medical English', believe that "things can go badly wrong if the teacher is medically naive and ill-prepared". Smith (1988: 18), with the idea of bridging the subject information gap, recommends the use of 'popularized versions' of research articles only to students for whom English is their L2 and "who need to familiarize themselves with both formal and colloquial medical terms" (Smith 1988: 18). He later says, however, that once the students have seen these popularized versions the class can be sent to the library to search for the source papers, compare both texts and further work with them. On the other hand, Dubois (1988: 20-21) also suggests that ESP teachers should not only use 'specialized lexicons' for attacking comprehension difficulties and problems, but these lexicons should also constitute an important element for classroom use.

Nevertheless, Hutchinson and Waters (1987: 161) have pointed out that if the use of very specialized texts makes work in the classroom difficult, "learners will soon lose their liking for such texts". We think, therefore, that a kind of a negotiation process should be introduced in which not only the learners' needs should be taken into consideration, but also the knowledge and competence of the instructor, and whether or not he will be capable of handling the selected texts. While we feel that ESP teachers need not have to be specialists on the subject or even acquire subject knowledge -it would be too great a burden on them-, it is important that they show a positive attitude towards ESP content, have knowledge of certain fundamental principles of the subject, as well as being able to ask intelligent questions. In a word, "the ESP teacher should not become a teacher of the subject matter, but rather an interested student of the subject matter" (Hutchinson and Waters 1987: 163).

2. The ESP Syllabus.

The need for information and being up-to-date on publications about health and sickness, manifested by health professionals and students alike, and also the relevance bibliography has acquired in research work, are matters which demand a new and serious restating of the syllabus design issue (cf. Figueiredo *et al.* 1988). The syllabus -authors will say- must be not only 'realistic' and 'relevant' (Stevens 1977: 26), but also flexible, practical and, at the same time, conducive to provide learners sufficient skill and ability for their linguistic autonomy in L2. Their ESP needs, whether EAP or EOP, will be better complemented the moment we make their task easier in the acquisition of such autonomy. It is not enough to furnish them with a series of more or less difficult subject-specific texts, or help them in a bibliographical search for such texts and their comprehension; we must help them to find out first in which context a specific text has been written (academic article, manual, reference book, report, abstract, etc.); next, and based on their L2 level and reading comprehension ability, uncover and explain and/or discuss the possible L2 complexities and difficulties, separate semantic units according to classification or differences, rewrite and/or summarize the text, or reduce it to simpler syntactic units or more obvious units from the semantic standpoint, and, if the case calls for it, be able to convert the L2 text into L1.

During our years of teaching experience we have observed that in 'reading comprehension' exercises the student is unconsciously searching for his L1 representation of the text, in what some have called a 'sly translation'. And this seems to be true, basically, through an excessive use of the bilingual dictionary -not to say an inadequate teaching methodology used in secondary schools; furthermore, when the student is asked a question for comprehension of the L2 text, the question is again unconsciously translated first into L1 and then a possible answer is mentally sought in L1, to be immediately construed, more or less successfully, in L2. Teaching the learner the assimilation of an L2 text, that is, getting him to think in English, must be one of our main teaching tasks to really make English a true vehicle of communication, but it must not be forgotten that it is the most difficult skill and it can only be achieved slowly and with time. The student must be taught in such a way that his 'sly translation' come out of secrecy and simply let it become another important skill in our teaching activity.

It is obvious that the linguistic skill our learners urgently need is reading -with comprehension. Our syllabus, therefore, must progressively adapt itself to the needs of students who are specializing in their field of study as they advance in their university studies, while at the same time English, in a parallel direction, must become more functional, which is really the essence of ESP. Hence this syllabus must be tied to the very concept of ESP. As Yalden (1987: 77) has written, the "syllabus should not be rigid, but flexible; not closed, but open-ended; and not static, but subject to constant revision as a result of feedback from the classroom".

The syllabus will emphasize, among other important skills, communication and more concretely interaction. We achieve this through adequate classroom exercises according to carefully planned pedagogical steps through which the mass of knowledge to be learnt is presented broken down into manageable units. Professionals in the field of teaching 'medical English' have concluded that topic-based courses are most successful, finding it most helpful "to conceive of courses as planned sequences of pedagogically useful activities, rather than as planned sequences of potentially relevant language items" (Allwright 1977: 59). The so-called Nursing Care Plan (NCP), in its different steps, is easily applicable to a classroom set-up, and its steps, are easily recognized by first-year nursing students: assessment (which includes data collection), nursing diagnosis, planning, intervention and evaluation. Through the presentation in class of a specific case-study, which can be worked on in groups during several class periods, students are prompted to enact (role-play) each one of the NCP steps, the first being really suitable for ESP beginners, while the more gifted students can work on other more complicated steps. Finally, and as a complement to the previous oral interaction in L2, students are required to take notes and/or summarize, also in L2, according to different categories (data: sociological, psychological, physical, recreational, nursing aspects, and so on; nursing instructions and assessment, including interpretation of physicians' instructions, etc.), and also create case-histories of their own.

3. Role of Translation in Classroom.

The classroom activity we also want to emphasize here, however, is the teaching of ways and solutions to express L2 in L1, traditionally called translation. In order not to fall into some kind of contradiction after what we have said, we must insist on the fact that this return to the old craft of translation is carried out, not in terms of 'teaching' it, not as an end in itself, but simply as another classroom activity.

Finocchiaro and Brumfit, while making a strong defense of the notional-functional approach, point out that in teaching English as a foreign language, and more concretely in groups where students share the same L1, translation, "both written and oral, may still have a role to play, even though the reaction to the *excessive* use of grammar-translation led some teachers to reject both parts of the method on principle" (Finocchiaro and Brumfit 1983: 5; the emphasis is ours).

Alan Maley, in his 'Foreword' to Duff's text, *Translation* (1989: 3), has recently said that this return to translation in the classroom may be due to the fact that the "communicative movement has begun to run short of ideas". While this may be considered an over-simplification, we do agree, nevertheless, with Duff's creed when he says that translation in the classroom, if used adequately, develops three essential qualities in all language learning, that is, *accuracy*, *clarity* and *flexibility*. He puts it this way:

It trains the learner to search (flexibility) for the most appropriate words (accuracy) to convey what is meant (clarity). This combination of freedom and constraint allows the students to contribute their own thoughts to a discussion which has a clear focus -the text.

(Duff 1989: 7)

Translation as a classroom activity has been discussed in several recent publications and their authors agree in asserting that great efforts are being made towards a reassessment of the possible contribution of translation to foreign language teaching. Essays by Tidford (1983), Tidford and Hicke (1985), and Tudor (1987), among others, as well as the above-mentioned book by Duff (1989), dwell on the value of translation as a valid tool in the learning of a foreign language, and at the same time underline the methodological value of a "selective and directed use of translation activities" (Tudor 1987: 268). Nevertheless, they rightly complain that too little has been said about translation as part of the ESP teaching process.

Due to our supernumerary class groups, unfortunately so typical in Spanish universities, translation has often become a central teaching activity in our classrooms, a fact often not recognized by some of our colleagues since translation in classroom has been minimized by many authors. It must be emphasized, however, the way we are going to use it in classroom and with what materials. Thus it is fundamental that we consider materials selection a most important aspect of the syllabus; they must be prepared in such a way that they become an 'encouragement' to learning (Stevens 1977: 27). Hutchinson and Waters (1987: 107) have also said that the materials we prepare for classwork should "reflect what you think and feel about the learning process"; in other words, teaching materials must be 'compatible', not only with the teacher's attitudes, but also with the teaching approach being followed (Stevens 1977: 27).

Thus, we shall provide that 'encouragement' by giving opportunities to learners to make use of the foreign language knowledge and skills they have previously acquired. As we emphasized above, we must also make sure that both learners and teacher can cope with the materials. Furthermore, these texts (which should be graded at least for the learner who first approaches ESP) will be expounded on in class in terms of pointing out different aspects of language use: problems related to sentence structure, word order, word clusters, passive voice in ESP, impersonal expressions in technical texts, etc., with the idea of showing the learner how the language operates, or simply reminding him of correct and appropriate language use. Nevertheless, we must avoid presenting these materials with the sole purpose of acquiring a "correct and appropriate language use", since it would result in the materials being "simply a statement of language use rather than a vehicle for language learning" (Hutchinson and Waters 1987: 108).

Translation in the classroom, therefore, should not mean giving out a series of written home exercises, later corrected 'in red' by the professor. It must be an attempt to provide the learner with the opportunity to compare and discuss his own work with that of his classmates, and be able to respond to suggestions made to him. Through the introduction of selected and graded texts -either our own or taken from an adequate textbook- we intend, on the one hand, to highlight specific language features and translation pitfalls to the ESP reader, and on the other, to avoid -according to group level and stage of the course- syntactic complexities which often handicap rather than help in the learning process. As the course advances and the learners' language ability improves, learners are gradually introduced to what some authors have called 'authentic texts'.

- An adequately used translation practice becomes a positive linguistic tool that complements other learning skills, from which it should not be isolated. Furthermore, it is part of the preparation process for the student to enroll, on an optional basis, in what we have called 'Translation Workshops', organized usually with third-year students who have already completed at least one regular ESP course. As we mentioned above (see footnote Nº 4), learners are engaged first in a bibliographical search for a specific topic or heading, and later, through a skim reading exercise of the material found, some translation activities are undertaken under the supervision of their ESP professor. Perhaps here we could more properly speak of 'authentic texts', since the student is actually involved first in a research process on a specific topic he will be working on, and later in a partial/total translation of the materials which may be considered useful for his research purposes, and as a course project for other subject areas. These 'Workshops' have already proved to be highly operative in our teaching process, and mainly because the students themselves feel they are involved in something they really enjoy doing. It must be added, however, that we will only obtain positive results as long as we maintain certain control over these 'Translation Workshops', and as long as the number of participants per group is not too large.

CONCLUDING REMARKS

Through the previous pages we have tried to present, on the one hand, the issues we, as ESP teachers, have to cope with in order to improve our teaching practice with students pursuing a career in health sciences, while, on the other, we have tried to emphasize the fact that ESP must not be viewed simply as a body of specialized language, but -as Waters (1988: 31) has said- "as a *special approach* to ELT, one based on taking into account the learners' reasons for studying English".

We hope to have made sufficiently clear the importance of *needs analysis*, although not only in terms of simple learners' needs; we also take into consideration the idiosyncrasy of our university structure, of our student groups and their foreign language level, and, above all, their real *language learning needs*; in other words, what learners need to do in order to obtain the L2 autonomy.

It has also been our contention through these pages that syllabus planning and selection of materials must go hand in hand; they must evolve together each being able to inform the other. These materials should cater to the students' learning needs, and ultimately promote communication. In order to reach these goals, materials should remind learners of what they already know, which would at the same time be the first step towards achieving that communication on the learners' part. These texts should also interest the student and, in a way, be a complement to other disciplines within their studies.

Through our teaching experience we have also arrived at the conclusion that *language learning needs* are not totally satisfied without taking into consideration the 'old craft' of *translation*. Although discarded by many authors as old-fashioned and not conducive to the ultimate goal of ESP teaching, that is, communication, we claim that, if adequately used as another classroom tool, it can become a real asset to our teaching activity, especially in teaching students within health science studies.

We hope, therefore, to be able to combine and integrate in our teaching program the experiences of educational experts with our own. Because of their pragmatic view on teaching, we took as our point of departure both the *learning* and the *target* situations, as described by Hutchinson and Waters in their 'learning-centred approach', in its different activities: the establishment of the syllabus aimed at three concomitant aspects, namely topics and tasks, materials and detailed language/skills. This will lead to the evaluation of language and skills content of materials in order to be able to make the necessary adjustments (cf. Hutchinson and Waters 1987: 92-94). To use Hutchinson and Waters' (1987: 94) journey comparison, "The syllabus acts in the first instance as a compass to show the general direction. Then it becomes a sketch map. When the possibilities have been explored, obstacles noted and available resources collected, more detail can be filled in on the map, until the route is clear".

NOTES:

(1) Meyer reported that, in the early 1970s, 70% of the results obtained in France on cellular and molecular endocrinology had been published in English. He said that most French contributions to science and medicine were being made through magazines published in English, either in the USA, UK or in other European countries (cf. Meyer 1975: 73-74).

(2) We want to acknowledge the assistance provided by Mrs. Ana Murillo, assistant librarian (School of Nursing, University of València), who helped us in this book and journal recount.

(3) When this is the case, general English classes are provided, after which learners take part in ESP courses. Although this does not solve altogether the problem of level, it is nevertheless slightly diminished.

(4) In the last three years we have established in the Nursing and Physiotherapy Schools (University of València) what we call 'Translation Workshops' with third-year students of English. The idea started out of a multidisciplinary effort from different disciplines, with which we intend that small groups of students take up a research project (for example, 'Noise in the big cities', 'Cancer and Breast Self-Exploration', 'Injuries in Sports and Rehabilitation', etc.) directed by a professor from a specific discipline other than ESP. Their first job is to carry out a bibliographical search on the topic chosen. The skim reading of abstracts, summary and translation of some of them is done by different groups of students working on the project and enrolled in some translation group, under the supervision of the ESP professor.

(5) We are not referring here to the idea of a 'negotiated syllabus', a variant of the functional syllabus, in which "the linguist and the learner become the prime actors, and the teacher becomes a part of the total instructional resources available" (Yalden 1987: 63).

(6) The accuracy of bibliographical material provided by authors is an issue which has been recently raised by experts, especially in medical literature. In fact, some maintain that a bibliographical search should be considered as important as a method, the same way a treatment or a diagnostic procedure is, and thus ought to be described in the methods section in biomedical articles (cf. Bastús 1985: 625).

(7) Waters (1988: 35) has already spoken about the urgent need of "revamping secondary school ELT".

(8) See, for instance, Morrow (1977), Huerta (1983) or Bhatia (1986). Hutchinson and Waters (1987: 159) believe that a text "can only be truly authentic ... in the context for which it was originally written", since any text being used for an ESP set-up has been separated from its original context. They contend, therefore, that there is "no such a thing as an authentic text in ESP".

BIBLIOGRAPHY

ALLEN, J. P. B., and Henry G. Widdowson (1974): "Teaching the Communicative use of English". International Review of Applied Linguistics 12/1.

ALLWRIGHT, Joan & Richard (1977): "An approach to the teaching of medical English", in Susan Holden, ed., English for Specific Purposes. London. Modern English Publications, pp. 58-62.

BASTUS, J. B. (1985): "¿Sé consultar la bibliografía? Pasado, presente y futuro de la búsqueda de información biomédica". Medicina Clínica 85: 625-627.

BHATIA, V. K. (1986): "Specialist-Discipline and the ESP Curriculum", in Makhan L. Tickoo, Language Across the Curriculum. Singapore. SEAMEO Regional Language Centre. (Selected Papers from the RELC Seminar on "Language Across the Curriculum" Singapore, 22-26 April 1985)

COFFEY, Bernard (1985): "ESP - English for Specific Purposes", in Valerie Kinsella (ed.), Cambridge Language Teaching Surveys 3. Cambridge. Cambridge University Press, pp. 78-93.

DIRCKX, John H. (1986): "The technical language of medicine". EMP Newsletter 3/1: 43-46 (reprint from ch. 2 of Dirckx's book, *Ds + Rx: A Physician's Guide to Medical Writing*. Boston. G. K. Hall, 1977).

DUBOIS, Betty Lou (1988): "Classroom use of specialized lexicons, or, what to do after the list arrives". EMP Newsletter 5/2: 20-31.

DUFF, Alan (1989): Translation. Oxford. Oxford University Press ('Foreword' by Alan Maley).

FIGUEIREDO, C.L., E. B. RIBEIRO, J. G. KURTZ and K. M. da SILVA (1988): "A student-centred approach: Needs and uses of English at UFU". The ESPECIALIST 9/1-2: 55-70.

FINOCCHIARO, Mary, and Christopher Brumfit (1983): The Functional-Notional Approach. From Theory to Practice. New York. Oxford University Press.

HALLIDAY, M. A. K., A. MCINTOSH and Peter STREVEIS (1964): The Linguistic Sciences and Language Teaching. London. Longman.

HUERTA, Teresa (1983): "In defense of authentic language in EST". English for Specific Purposes 79: 1-2.

HUTCHINSON, Tom, and Alan WATERS (1987): English for Specific Purposes. A learning-centred approach. Cambridge. Cambridge University Press.

MAHER, J. (1987): "The development of English as an international language of medicine". EMP Newsletter 4/1: 10-22 (reprint from Applied Linguistics 1986, 7:206-218).

MEYER, P. (1975): "The English language. A problem for the non Anglo-Saxon Scientist". British Medical Journal 2: 553-554.

MORROW, Keith (1977): "Authentic texts and ESP", in Susan Holden (ed.), English for Specific Purposes. London. Modern Language Publications, pp. 13-15.

MUNBY, John (1978): Communicative Syllabus Design. Cambridge. Cambridge University Press.

SANS Quintero, M. I. (1990): "La importancia del inglés como vehículo de comunicación e información científica y su enseñanza en las ciencias de la salud". Revista Clínica Española 187/1: 25-28.

SMITH, D. E. Adams (1988): "The Process of Popularization - Rewriting Medical Research Papers for the Layman: Discussion Paper". EMP Newsletter 5/2: 10-19 (Reprint from the Journal of the Royal Society of Medicine 80: 634-636).

STREVEENS, Peter (1977): New Orientations in the Teaching of English. Oxford. Oxford University Press.

SWALES, John (1971): Writing Scientific English. London. Nelson.

TERRADA, M. L., et al. (1981): Bibliometría de la producción y el consumo de literatura médica en España. 1973-1977. Valencia. Centro de Documentación e Informática Médica. Facultad de Medicina.

TITFORD, C. (1983): "Translation for advanced learners". ELT Journal 37/1: 52-57.

TITFORD, C., and A. E. Hicke, eds. (1985): Translation in Foreign Language Teaching and Testing. Tübingen. Gunter Narr.

TUDOR, Ian (1987): "Using translation in ESP". ELT Journal 41/4: 268-273.

VILLAR, J. (1988): "El inglés, idioma internacional en Medicina". Medicina Clínica 91: 23-24.

WATERS, Alan (1988): "ESP - Back to the Future!". The ESpecialist 9/1-2: 27-43.

WILLIAMS, M. E. (1985): "Electronic databases". Science 228: 445-452.

YALDEN, Janice (1983): The Communicative Syllabus: Evolution, Design & Implementation. Oxford. Pergamon Press.

_____ (1987): Principles of Course Design for Language Teaching. Cambridge. Cambridge University Press.