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English in the Health Sciences: Focus on the Selection and Design of Materials

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I. Introduction

1. A large part of the material published on the teaching of English for Specific Purposes (ESP), especially in the health sciences, lacks some essentials for effective teaching. Frequently those who produce teaching materials overlook the needs and limitations of the teaching situation as an essential consideration when preparing syllabi. This neglect obviously has a negative effect on student motivation and traineeship in the target language (L2).

When examining teaching materials for health sciences, one gets the impression that there are sufficient basic textbooks at one's disposal to bring about a good learning situation. However, aside from the advantages and/or disadvantages of the methodology used, experience shows that often the materials do not lend themselves at all to the needs of the student.

In this study we intend to make a summary evaluation of several materials available and, in doing so, propose some alternatives. Our basis is a perspective rooted in our teaching experience and the observation that student motivation is a priority, particularly in ESP courses. In order for this motivation to be authentic, the texts should not convey the impression that their only purpose is to explain difficult grammatical structures in simple terms, but rather to offer an ample selection of specific topics related to the student's major field. By emphasizing specific topics, we will motivate students more effectively. In addition, we will motivate them when we address their target language needs and especially their learning needs (Hutchinson 1988: 71).

2. ESP is recognized as an academic discipline and supported by international organizations, such as the British Council and UNESCO. In the preparation of curricula experts have also promoted a new field of study they call "needs analysis," in which they weigh up the educational motives and ends of the study of English.

R. Mackin and A. Weinburger (*English for Doctors and Students*, Longman, 1949) were pioneers not only in publishing a textbook on health sciences, but also in developing an approach to what we consider today an ESP text¹. The publication of textbooks for ESP instruction began in the area of science and technology during the 1960s, with authors such as Pittman (1960), Close (1965), Herbert (1965), Ewer and Latorre (1969), among others (cf. Mountford 1988: 76-77).

During the 1970s ESP textbooks appeared in the field of health sciences (eg, David Austin and Tim Crosfield, *English for Nurses*, Longman 1974; Kenneth and Chuntana Methold, *Practice in Medical English*, Longman 1975), followed by the series *Nucleus. English for Science and Technology*, which includes works by Rosalie Kerr and Jennifer Smith, *Nursing Science*, Longman 1978; Tony O'Brien et al., *Medicine*, Longman 1979. These authors present a more practical approach to language teaching combined with learning activities comparable to the different teaching methods of L2 in general. In the series *Nucleus*, for example, the authors emphasize the word "use" more than "usage of language" and offer innovative approaches to the teaching of English for specific purposes by presenting numerous activities for working with the language.

Changes in methodology during the 1980s brought about changes in new teaching materials. More specifically, new methods were evident in publications that focused on communication (less dependency on notional-functional methods) and allowed more freedom for practical application in teaching. Worthy of note here are texts by P. L. Sandler, *Medically Speaking*, BBC English 1982; Eric Glendinning and Beverly Holmström, *English in Medicine*, CUP 1987; David V. James, *Medicine*, Cassell 1989, in which methodology is applied to modern communication skills in such a way that the language becomes more relevant and conforms to real-life experiences. These changes, as well as socio-linguistic practice of the language with the introduction of numerous communicative activities (eg, case studies, medical reports, case histories, role-playing exercises, etc.), all succeed in bringing the language closer to the student and his or her surroundings.

3. As a way of making a summary review of these and similar textbooks - a list and an exhaustive analysis go beyond the limits of this study- we would conclude that the majority of texts do not suit the reality of the classroom nor does their content reflect the reality outside the classroom. On the other hand, students concentrate on studying only the text, whose main function is to present the syntactic structures of L2 and provide the student with new vocabulary. This approach, which Johns and Davies (1983:3) labeled TALO ("text as linguistic object"), can be found, with little variation, in the majority of ESP classrooms and textbooks. Therefore, we believe that one of the teacher's major functions is to

direct and coordinate the selection and development of material for practical application to the needs of each teaching situation. By doing so we come closer to bringing about a more dynamic teaching approach, so that the chosen text becomes a vehicle for information -TAVI ("text as a vehicle for information")- to use an acronym Johns and Davies coined. One can easily detect this trait by looking at the activities that follow the analysis of a specific text. As a result of our study we conclude that as the student progresses within L2, TALO should give way to TAVI.

II. From the selection to the design of materials

1. Despite the variety and quantity of medical literature², experts have shown that these materials lack information required in teaching ESP. The problem surfaces when one selects and/or adapts this medical-scientific material to the student's needs. And, in fact, we must know how to distinguish between their linguistic needs and their "possible" needs for information. As Hutchinson and Waters (1980: 178) stated, "what the students are expected to cope with should not be confused with what students require in order to cope." At this point the ESP teacher's ability becomes relevant, not because of his role as "teacher-centered topic selection organizer," but rather as a coordinator in developing the entire learning process of language training, a process in which materials selection has a relevant place. The result of combining these two roles should create a "balance between control and freedom" (Brumfit 1980: 74).

Indeed, our teaching experience with health science students has made us analyze and believe in the importance of the topic-based approach in ESP. Joan and Richard Allwright (1977: 59) stated that "courses as planned sequences of pedagogically useful activities, rather than as planned sequences of potentially relevant language items," were a great help. Expressing her ideas in similar terms, Florence Davies believed that the "information structure" of a text (TAVI) has more significance than its "rhetorical structure" (TALO).

2. In an ESP course for health sciences, however, there should be complete collaboration and coordination between teacher and students. The ESP student is quite mature, has experience in second-language learning, and possesses sufficient intellectual capacity to exchange opinions with teachers. Consequently, the teacher and students should reach an agreement -a kind of a "negotiation" (Allwright & Allwright 1959)-, an important part of which is ordinary topics which students suggest with the help of other teachers in their field of study and in consultation with the ESP teacher, who has acquired sufficient health science subject expertise to enable him or her to be flexible towards any current topic that might surface during the course or be of interest to the students.

¹ Consult the theoretical essays, viewed in retrospect between 1962 and 1981, which John Swales collected, commented upon, and published in *Episodes in ESP* (1985, rpt. 1988).

² We refer to "Index Medicus", "Biological Abstracts", "Excerpta Medica", etc., and the databases developed in recent years; consult, for example, studies by Maher (1987), Villar (1988), among others. Cf. also Piqué and Estévez (1991).

Therefore, the instructor, the students, and teachers of other subjects would then form what the Allwrights call the "topic-selection team" (1977: 59). Obviously, teachers of other subjects, whose role is limited to suggesting and participation in topic selection, would not become part of a "team-teaching approach", since they do not teach ESP.

3. Overly specialized textbooks contain serious difficulties. In addition, highly specialized texts create class work which is too difficult for the student as well as discouraging for the teacher when the latter does not receive a correct response. This situation, which has created and continues to create so much controversy, did not escape the attention of Widdowson (1979: 166), who concluded that instructors should not give students "authentic materials" until they have enough subject knowledge to respond to these materials in an "authentic" way. For this reason he recommended not using them at the beginning of ESP courses.

Without entering in depth into the argument about the "adaptation" and/or "easification" of materials, let us say, however, that some authors agree on the use of simplified or adapted texts. They prefer to put aside content materials in the specialized area and concentrate on the text. They also regard the simplified text as "one in which grammatical, lexical and rhetorical elements have been made less complex to render the learning of the language more effective" (Kennedy & Bolitho 1984: 47-48).

However, not only specialists in different subject areas, but also teachers of English philology and of linguistics have criticized texts with simplified and/or adapted materials. Their main objection is based on the fact that simplification is not adequately brought about when textbook authors emphasize vocabulary and syntax rather than rhetorical and conceptual structures. According to Bhatia (1986: 50), material contained in such textbooks must not be considered "instances of real scientific communication." He also harshly criticizes the process termed "easification", as applied to "real authentic texts", whose aim is to convert them into "simplified, subject-specific texts" (ibid, p. 51). According to Wood (1982: 126), "simplification, unless carefully carried out, may cause greater problems than it solves". On the other hand, the instructor must not allow materials handed out in class to become what Swales (1980: 18) calls "showers of single-page handouts." In other words, these materials should not just represent a packet of language exercises that are of little interest to the student (Hutchinson & Waters 1980: 180).

4. Although "textbooks are increasingly less self-sufficient in practice material and in coverage of skill areas" (Swales 1980: 14), experience on the use of in-house materials in class shows that the information they contain, either adapted or extracted from professional medical literature, must be made available. It can not, however, replace the textbook.

The textbook should provide a reference source for the course; likewise, it represents a guide and often a psychological support because it gives the student an orientation and source of information on the scientific knowledge of the language

("usage of language"). However, besides linguistic problems, gaps in content usually exist, both in subject information and in its actualization, a problem that cannot be bridged by a fixed-format textbook.

Pilbeam (1987: 119) pointed out that in-house materials probably are more specific and appropriate than published materials (ie, so called "authentic materials"), and that they also lend themselves more to practical application, as far as the language itself is concerned, due to their flexibility and methodical application. However, we cannot dogmatize, rejecting published materials *a priori*, since many of them can be viable and useful. A text is not necessarily less didactic because it is authentic. Therefore, we must again emphasize the teacher's role as moderator-organizer of the topic-selection team for choosing those texts considered more suitable.

III. Conclusion

When we speak about the necessity of a textbook, we do not view it in isolation; on the contrary, we carefully study topics contained in the text and decide whether they will be important in the future. The worst scenario is where a limited, rigid, reduced, and repetitive textbook may become a tyrant for the instructor, on account of its content, order, and organization of material. We advocate a textbook that contributes to the development of skills ("use of language") and conforms to new pedagogical approaches to language teaching. Also, it should help students in their communicative needs and, in doing so, prepare them for their academic and professional activities.

A textbook should be structured in such a way as to allow instructors to insert, into its content, in-house as well as "authentic" materials that can best be adapted to the student's study of the language and content information in his or her specialization (eg, medicine). To this effect, Williams (1983: 254) points out that the teacher "takes over where the textbook leaves off, and he or she must be able to assess its strengths and weaknesses... The textbook is a tool, and the teacher must not only know how to use it, but how useful it can be". This criterion should be valid for all teaching materials, the course text, and additional texts with which we complement our teaching. We must not forget that our teaching must develop a learning atmosphere which will stimulate students so that the L2 they learn from the text and materials will prepare them for real experiences when they begin work in the specialization.

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