

専門教育を支援する大学英語について — ESP の実践例からの一考察

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A Study on ESP in Academic Settings

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要旨 (Abstract)

大学設置基準の大綱化以降、日本の大学においてはカリキュラム改革を中心としたさまざまな改革が順次行なわれて来た。本稿では、社会のニーズに応じた専門的知識と技能を持った学生を育成するという今日の大学の目標に沿う基礎的な英語教育とはどのようなものかということをも ESP (特定目的の英語) の歴史をたどることによって考察する。さらに、基礎教育課程と専門教育課程をつなぐ一貫した英語教育プログラムの事例を検討し、今後の課題と可能性を探る。

専門教育が第一言語 (日本語) で行なわれる日本の大学の場合、英語学習は広い意味での情報の収集と将来に亘っての学術的・職業的な目的を視野に入れたものとなる。従って欧米型の EAP (学術目的の英語) の実情と手法を踏まえつつ、今後は日本型の教材開発と教授法との最適なバランスを求めめる中で効率的な大学英語教育について考えて行きたい。

1. Background

In discussing current issues of English teaching in Japanese universities, the year 1991 can be regarded as a point where changes occurred as to how

foreign language teaching to Japanese learners in tertiary education is perceived. In this year, the Ministry of Education, the present Ministry of Education, Culture, Sports, Science and Technology (=MEXT), announced a reform in the university curriculum. This is known as the revision of the National Standards for the Establishment of Universities.¹ In accordance to the aims of this administrative action, a number of reform plans have been put into practice during the last decade.

Specifically, universities have undergone a number of changes one of which was to review the curriculum in order to meet the challenges placed on higher educational institutions.

Before the 1991 revision, foreign language courses were classified under "Foreign Languages" as part of the non-disciplinary, compulsory subjects basically for first- and second-year students. Partly as a consequence of this place in the curriculum, conventional language courses had little consistency with subject-area courses. In this case, the aim was essentially to have students acquire the ability to appreciate English for General Purposes (EGP), such that a literate person was assumed to have.

In order to fill the gap between what was expected and the status quo, universities redefined the object of language courses with an aim to empower students with the communicative competence that would be needed as an academic or social person in their disciplinary fields. The development of English for Specific Purposes (ESP) courses for undergraduate students appeared as one of the solutions to improve the system of language education.

The aim of this paper is to explore how an ESP approach can be applied in course design at a Japanese university. In order to find out what issues are involved in designing a suitable ESP environment for EFL students, students who learn English as a foreign language, the paper will first draw

an outline of the chronological development of ESP in various educational contexts.

2. Evolution, definition and classification of ESP

ESP has its origins in the 1960s. The post-war period was an era of expansion in scientific, technical and economic activities on an international scale leading to an increased use of English as the working tool in order to export and import knowledge of science, technology and business. Therefore, texts were specifically selected and tailored for students of particular fields such as medicine, biology, engineering etc., instead of using general English textbooks.

Another factor that contributed to the emergence of ESP as a discipline was the evolution of educational psychology emphasizing the role of the learner. The ESP teacher, or the 'practitioner,' is not in the position of being the dominant figure but acts rather as a course designer and collaborator. Key aspects of ESP methodology are explained in Dudley-Evans and St. John (1998)² building upon Strevens' (1988) definition.

1. Absolute characteristics:

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

2. 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 used for learners at secondary school level;
- ESP is generally designed for intermediate or advanced students. Most ESP courses assume basic knowledge of the language system, but it can be used with beginners.

At this point, it may be necessary to explain the many abbreviations that have been used in describing ESP, such as EOP, EAP, EBP and EST. Strevens (1977) maintains that in terms of function we can distinguish two types of needs, occupational and academic. Based on this, a distinction can be found between English for Occupational Purposes (EOP), and English for Academic Purposes (EAP). Consequently, EOP would be of service to those who use English as a tool to exercise their professions. EAP on the other hand, would be for those who need to read and understand textbooks or exchange scientific thoughts with other colleagues from an academic world. As for English for Business Purposes (EBP) and English for Science and Technology (EST), Dudley-Evans and St. John's classification of ESP by professional area places EBP as a category within EOP and EST as an area within EAP. Also, other acronyms such as English for Medical Purposes (EMP) and English for Legal Purposes (ELP) have always had their place as a subcategory of EAP.

Following the assumption made by Dudley-Evans and St. John, language should be included as a defining feature of ESP. While needs analysis specifies the activities or the situations that students need to carry out or deal with, ESP looks into registers, genres and associated language that these activities generate and depend upon. Thus, in viewing ESP from a

historical perspective, this paper will focus on approaches of language description featuring each stage of its development, as well as distinctive teaching materials, and the relationship between theory and practice.

3. ESP from a historical perspective

It is held that there are four stages in the history of ESP, each featured by the way in which context was analyzed (Bhatia, 1993; Dudley-Evans & St. John, 1998). The first period in the mid-Sixties is characterized by an interest towards register. The following period in the early Seventies is referred to as the stage of rhetorical and discourse analysis. Then, the idea of communicative language teaching comes into the scene during the late Seventies leading to the analysis of study skills. The growth of needs analysis based on the learner-centered approach represents the final phase from the late Seventies to the early Eighties.

In terms of geographical areas which ESP has been associated with, typical examples are countries in the Middle East and Latin America in the Seventies with a need for EST in academic contexts. Relatively recent examples are the economically growing countries in South East Asia and the Pacific Rim with an increased need for EBP.

Also, to illustrate trends in ESP now, genre analysis should be mentioned as a device for realizing the target situation in the form of actual texts.

3.1 A trend in EAP in the mid-Sixties: register analysis

According to Bhatia (1993), one of the earliest approaches to the description of varieties of language use received widespread attention in the Sixties. Register analysis, developed by Halliday, McIntosh and Strevens (1964), focused mainly on the identification of statistically significant lexico-grammatical features of a linguistic variety. Their claim

was that *language differs as its function varies; it differs in different situations. The name given to a variety of a language distinguished according to its use is register.*

The work of register analysis focused on the grammar and vocabulary of scientific and technical English. The first significant ESP (EST) textbook was published in 1965 — *The Structure of Technical English* by A. J. Herbert. The book was designed for students who had studied some English but needed training in the special structures and linguistic conventions of the English used in technical and scientific writing. An extract reprinted in Swales (1988), shows an approach to the teaching of semi-technical vocabulary and performing exercises around a certain grammatical focus.

3.2 A shift towards functional language description: rhetorical and discourse analysis

While studies of specific registers drew interesting conclusions about the linguistic/stylistic variation in different varieties, the findings were constrained by the emphasis on surface features. Thus, a new approach exploring the relationship between grammatical choice and rhetorical function was introduced — rhetorical and discourse analysis.

In the early Seventies, a pioneering work in this area was done by Lackstrom, Selinker and Trimble (1973). Lackstrom et al. suggest four rhetorical levels that a writer needs to organize a text.³

Level A The purpose of the total discourse

Examples: presenting information, recommending,...

Level B The functions of the units that develop the purposes of

Level A

Examples: reporting past research, discussing theory,...

Level C The rhetorical devices employed to develop the functions of
Level B

Examples: definition, classification, explanation,...

Level D The relational rhetorical principles that provide cohesion
within the units

Examples:

Natural principles:

time order, space order,...

Logical principles:

comparison and contrast, analogy, exemplification,...

A successful book that put this idea into practice was *Nucleus: General Science* (1976). It is compiled according to a functional-notional syllabus⁴, and focuses on Level D in the above illustration. Specifically, it makes use of contents drawn from discipline-related science contexts as a means to teach specific notions — semi-technical language of scientific description in this case.

3.3 Focus on study skills

In the late Seventies, interest in study skills consistent with the idea of communicative language teaching became widespread. For a given situation, priorities were identified among the four skills (i.e., reading, writing, listening and speaking). As previously mentioned, the key characteristic of ESP is that it reflects the teaching/learning situation, i.e., the needs of the learner, the people involved, the learning period, materials that can be used, and many other factors. Therefore, in situations where

the medium of instruction is not English, for example, reading might be the focus for the most part. In other situations however, different skills can be involved.

Some of the possible cases of focused study skills are examples such as listening for non-native students starting an academic course in the UK; oral skills for business people conducting international negotiation; writing skills for graduate students writing a thesis or engineers employed by an international company.

Moreover, the kind of skill, or the set of skills required for both teacher and learner differ according to the learning context. Questions such as whether or not English is used outside the classroom and whether disciplinary courses are also taught in English must be addressed.

A textbook cited in Swales (1988) that fit into this period is *Reading and Thinking in English: Discourse in Action* by Moore et al. (1980). The book is one of four volumes (Concepts in use, Exploring function, Discovering discourse, Discourse in action) that comprise this series and features a concern with discourse matters.

3.4 Period of consolidation: analysis of learning needs

Coinciding with the focus on study skills there was the appearance of needs analyses during the late Seventies and the early Eighties. A general definition of needs analysis is that it is a system for collecting information about the communicative demands faced by the learner in the target situation.

Needs analysis may be more fundamental in business English than, perhaps, English for science and technology as learners' needs can be much more varied and their proficiency in the targeted language skills relatively unpredictable. Thus, it is now recognized as a key feature of ESP.

Munby (1978) provided a very detailed model for specifying the uses of language that learners were likely to encounter in specific purpose situations. As the model concentrated on the future/target needs of learners (referred to as the *Target Situation Analysis*), there were claims that needs analysis should be concerned with establishing both a target profile of language skills to be attained and the actual profile describing the learners' current proficiency in the activities they are expected to carry out (*Present Situation Analysis*). The results of these analyses are used to identify the gap between what a student knows and can do at the present point of time and what he/she ideally needs to do in the target situation. In a learner-centered curriculum, this type of needs analysis referred to as *deficiency analysis* (West, 1997) serves to develop a course tailored to the students' present and future needs.

4. A case of EMP: Curriculum in practice at a Japanese medical university

In the following account, a case is studied with the hope of gaining a better understanding of relevant factors for the Japanese university language curriculum in an ESP setting. Points of focus will be on how ESP/EAP teaching material can be used, collaboration with subject-area instruction, and whether the techniques and processes can be transferred to operate in different circumstances.

4.1 Outline of the curriculum

The case is a 6-year integrated medical English curriculum practiced at a medical university in Tokyo. It was selected as one of the programs in the Distinctive University Education Support Program (= Good Practice [GP]) for 2004 fiscal year.

MEXT started the so-called Good Practice project in 2003, an incentive

program with an aim to support distinctive and outstanding educational efforts in order to stimulate and enhance higher education reform among universities in all sectors; national, public and private. In its starting year, the project received 664 applications from which 80 programs were selected. The selected programs receive financial assistance, and progress and outcomes are disclosed to the public.

According to the introduction on the website of this university, the aim of the curriculum is 'to motivate students in medical school at an early age and to develop an interest in medicine from the very first year of the 6-year course.' Commonly speaking, EAP courses appear in the curriculum as components of subject-area instruction in the later years of university education. Thus the university's introduction cited above can be seen as an innovative effort to design their EMP training from the initiating stage of its medical course.

The title of this program is 'Designing an integrated language program of English for medical students.' The curriculum consists of English courses assigned by year of medical schooling, starting from year 1 to year 6 plus another year in the graduate course. The following is a description of course content.

An integrated language program of English for medical students

General Education Courses

Year 1:

- Comprehension of basic medical vocabulary
- Reading medical journals
- Discussion on medical topics of interest

Basic Core Curriculum

Year 2:

- Mastery of medical vocabulary
- Reading introductory textbooks on medicine
- Oral discussion
- ...

Medical Specialty Core Curriculum

Year 3:

- Reading English texts on medical topics
- Using the internet for professional purposes
- Individual materials by medical subcategory

Medical Specialty Core Curriculum

Year 4:

- Learning to read medical research paper
- Studying medical English used in English- spoken hospitals/institutions

Clinical Training

Year 5:

- Case presentation (practice in small-groups)

Selective Clinical Training

Year 6:

- How to present a research paper in English
- Pursuing an academic career in medicine (class discussion)
- Learning to participate in international conferences

Graduate Year 1:

- Writing research papers in English

(*Distinctive University Education Support Program, Tokyo Medical University*)⁵

Teachers and instructors supporting this system include staff from the in-house *International Medical Communications Center*. Native and non-native English teachers, full-time and part-time personnel in charge of medical English translation, give support by preparing authentic texts and materials. Equally, medical doctors support English courses in higher levels of the curriculum, for example, by residing in the medical specialty course (Year 3) and responding to technical questions from students.

4.2 Analysis and pedagogical issues

Instruction and EAP situation

In the above case, the program is supported by staff in charge of collecting necessary information or translating them for individual courses. However, in other cases where the English teacher must design a course from the outset, expertise in register and genre may be useful in choosing the texts suitable for his/her students. Especially, in an EFL situation in which subject-area courses are taught in the national language as in Japan, students' needs and motivation may vary depending on what sort of interests they have, and on the career paths they intend to pursue. Therefore, in general/basic core curriculum arranged for earlier stage tertiary education (generally first and second years), linguistic instruction such that would link academic/professional language education and secondary language education (in junior and senior high schools) would be essential.

In doing this, subject teachers could give information not only on technical issues but on predictable linguistic difficulties that students may encounter in their disciplinary areas. In other words, ESP/EAP language instructors may analyze those situations from a language learning

viewpoint, and results could be used as a basis for the selection of teaching methods for both general and specific course material.

Teaching material and language skills

Texts used in the above case are collected from medical journals and websites and tailored to meet the requirements of the curriculum. Also, an original textbook is in progress by efforts of the in-house *Communications Center*.

As discussed in the previous section, ESP teaching material has historically been changing its structure according to the language teaching situation and learning needs of the times. For the same reason, it can be said that materials design for contemporary Japanese learners may equally draw ideas from both the present-day and earlier ESP. In addition, considering the fact that Japanese has less language properties in common with English compared to languages of European origin, attention should be paid in order to develop specific language skills and compensate for this condition. From this perspective, the collection of texts of domestic and/or global sources should be accompanied by a repertoire of appropriate teaching methods for skills development. Consequently, efficient presentation of content is one of the issues for further research.

5. Summary

This paper started by viewing current issues related to English teaching in Japanese universities. One of the key elements that seemed to play a role in curriculum improvement was ESP in language courses. Based on this assumption, the history of ESP and its aspects as a pedagogical approach was outlined. Findings were applied to a study of an integrated language program in practice. How certain achievements can be

transferred to different circumstances was further discussed.

(Notes)

1. *Higher Education Reform*. Dec. 1996. Ministry of Education, Culture, Sports, Science and Technology. Home page. 26 Sep. 2005 <http://www.mext.go.jp/b_menu/houdou/08/12/96122d.htm>.
2. Dudley-Evans, T. and M. J. St John, *Developments in ESP: A multi-disciplinary approach* (Cambridge: Cambridge University Press, 1998) 4-5.
3. Lackstrom J., L. Selinker and L. Trimble, Technical rhetorical principles and grammatical choice. *TESOL Quarterly*, 7: 129.
4. A syllabus constructed around categories of meaning rather than categories of linguistic form. These categories relate to both semantic notions such as 'duration' or 'possibility' and communicative functions such as 'inviting' and 'apologizing'. (Rod Ellis, *Task-based Language Learning and Teaching*, Oxford: Oxford University Press, 2003) 346.
5. *Distinctive University Education Support Program*. Tokyo Medical University. Home page. 26 Sep. 2005 <<http://tokyo-med.ac.jp/index2.html>>.

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