

ENGLISH FOR SPECIFIC PURPOSES COURSES FOR ENGINEERING SCIENCES, A NECESSARY REQUIREMENT

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Abstract: *The present paper intends to show the significance of ESP (English for Specific Purposes) courses offered to students at technical universities, namely the Faculty of Civil Engineering, Surveying and Architecture and Faculty of Environmental Protection from the University of Oradea. Second, it also tries to investigate to what extent these ESP courses have been successful in fulfilling the job requirements of the prospective engineers. We are all aware that globalization has a major influence upon every aspect of life, no need to mention how important it is for technical engineers. Competent English communication is essential for huge success and for having a successful career. Students need to understand the importance of general business English and English for Specific Purposes and need to be well motivated and stimulated to learn if they plan to work for an industry. The students need to familiarize themselves with engineering contents if they want to pursue their career as competitive global engineers with long term goals. Considering how important English is it is no wonder we see it taught in schools, institutes, community colleges and universities as a compulsory course. Integrating ESP, notably in engineering fields, should become mandatory. The students that come to the first year college in the Faculty of Civil Engineering, Surveying and Architecture and Faculty of Environmental Protection are 18-19 years of age. After eight years of primary education and higher secondary level they have had eight or even up to twelve years of English. It has been noticed that some students are better language learners than others even though they all are exposed to similar teaching, use the same learning material and have similar opportunities to practice English. However, it's a known fact that not all learners behave in exactly the same way. There are some students who are very active, get involved while others prefer to remain neutral, in the back of the class or even passive towards learning. There are some students who progress very fast, apparently with little effort, whereas others put a lot of work into learning and they obtain poor results. There are some shy students who do not wish to interact with the teachers or with the other students. There are also students who prefer to learn things by heart while others opt for learning through practice. Therefore, it stands to reason that the existence of learners with different capacities and abilities seems to be a fact well worth researching. Also worth discussing is the introduction of ESP courses for technical students from the first year of study.*

Keywords: *ESP; engineering sciences; syllabus plan; language learners; evaluation.*

JEL classification: *I21.*

1. Introduction

It is very important that the students have the same English level before they start and ESP course so it is the teacher's role to assess and evaluate the students' level before starting a course on specific purposes.

In any syllabus plan at the university level, both the students and the lecturers are individuals whose performances can be evaluated. Everybody would agree that the students are the most frequently evaluated individuals. However, that part of the labor force from a university not engaged in administrative duties, but in lecturing ones, is well aware that there are many different mechanisms to evaluate its performance which, by the way, affects careers not only from a professional point of view, but also from an economical one. But, who decides whether a student should or should not take the course a member of the teaching staff has designed or is about to design? In many programs, entrance is nearly an automatic process since no selection or entrance test is required. In other words, prerequisites of knowledge or skills are not necessarily connected to those needed in the learning process of the target language but to factors such as branch of engineering the student is enrolled in, number of credits necessary for completing his/her degree, and so on.

When planning a research study it should be taken into account the students' readiness for taking specialized ESP course, together with certain performance-related indicators. The term readiness is not used arbitrarily, but quite deliberately since it takes into account the extent to which the students are potentially ready to take the ESP courses offered within a particular institution.

2. Literature review

English for Specific Purposes has its basis in an investigation of the purposes of the learner and the sets of communicative needs arising from them. These needs will then act as a guide to the design course materials. The kind of English to be taught should be based on the interests and needs of the students. In any technical school such a technical course would be compulsory, meaning that from the first year of study it should be introduced in the course syllabus for the future engineers.

English for Specific Purposes is that kind of English teaching that builds upon what has been acquired earlier in EGP (English for General Purposes) with a more restricted focus. It aims at acquainting learners with the kind of language needed in a particular domain, vocation, or occupation. In other words, its main objective is to meet specific needs of the learners. This thing just indicates that there is no fixed methodology of ESP that can be applicable in all situations, but rather each situation and particular needs of learners belonging to a particular domain impose a certain methodology of teaching.

Since its arrival in the 1960s, ESP has been developing steadily, particularly as a consequence of the shift to "a contextualized notion of language" (Master and Brinton, 1998: 1). The field has been gaining ground ever since English emerged as THE language for international communication and linguistic studies turned to the consideration of social contexts to deal with language as communication. Early studies on special languages were based mainly on the notion of 'register' which expounded in a Firthian environment, and was useful to identify special functional

varieties according to lexical aspects as the means to differentiate them from everyday language; more recent studies, however, concluded that this was not enough, because differences not only operate at the lexical level but also involve morphosyntactic and organizational patterns at the textual and pragmatic levels. The different ESP specific subdivisions - for instance, English for Academic Purposes, General English for Specific Purposes, English for Business and Economics, English for Science and Technology, English for Legal Purposes, among others - have come to be analyzed within the social context in which they are embedded and according to the linguistic choices made in order to meet particular situational and functional demands. These choices involve "lexical density, the complexity and the length of clause structure, the degree of formality and the management of information, to name but a few" (Master & Brinton, 1998:1).

Thus, ESP is centred on the language appropriate to the activities of a given discipline. According to Hutchinson and Waters (1987:19), "ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning." In this connection, Dudley-Evans (1998) explains that ESP may not always focus on the language for one specific discipline or occupation, such as English for Law or English for Engineering. University instruction that introduces students to common features of academic discourse in the sciences or humanities, frequently called English for Academic Purposes (EAP), is equally ESP. The term ESP presupposes a stock of vocabulary items, grammatical forms, and functions which are common to the study of science and technology. On the other hand, secretaries have different language needs from scientists, technologists, physicians, nurses, mechanics, lawyers, etc. In general, we may find various approaches to course design based on the types of courses, the target situation, the target population, and the purpose of the course. However, there are three main approaches that have influenced ESP in some way: (a) the needs analysis approach, (b) the learner-centred approach, and (c) the learning-centred approach.

Curriculum specialists believe that the breakdown of curriculum into components and sub-processes is of vital importance since it simplifies and organizes a process as complex as curriculum design (Hutchinson, Waters, 1987, Nunan, 1985). The first component in such a procedure is the needs assessment that is, obtaining data, followed by needs analyses that are, assigning value to those data (Graves 1996). Therefore, the first issue to elaborate on is the needs of the students. If needs are clear, the learning aims can be expressed more easily and the language course can become motivating. If the learners' needs are not taken into account, the course will be based on unstable or irrelevant material, will disillusion the students with the value of instruction or their capacity to learn the language, and will lead to low motivation (Mackay, Mountfor, 1978). By using what the students know, the researcher can explain, illustrate, and conceptualize the knowledge to be conveyed (Swale, 1985). To many people, needs analysis is limited to ESP, to the point that it becomes nearly synonymous with ESP. As a matter of fact, needs analysis is found outside ESP. In other words, any educational course should be based on needs analysis to guarantee success. Needs analysis is usually performed first; then data analysis is used to provide the particular language skills that students will use and the activities students will eventually complete.

3. Discussion

It is a known fact that engineers all around the world would find themselves use English for some aspect of their jobs. English language is used in most international organizations and publications in engineering field and most engineers whose native language is not English would find disadvantages in their professional terms. Besides the difficult task of developing expertise and skills in engineering, non-native speakers must master English through continued English education, which some have estimated takes anywhere from 4-10 years of training to reach an average level of proficiency. That fact would explain why teachers want engineering students to acquire English communication ability good enough to cooperate globally in their professional fields.

Engineering students in ESP courses are usually grouped according to factors according to the expected level of language ability, expected language learning aptitude that, at least in theory, should bring homogeneity to the groups, and this together with a more objective factor, that is, the branch of engineering the student is enrolled in. This combination of factors will not necessarily help lecturers predict future performances of these students. Brown et al. (1994) remind us that as providers of education it is important to step back and consider why teachers assess. Among the reasons why assessment is useful, the most frequently mentioned are "motivation", "creating learning activities", "feedback to the student (identifying strengths and weaknesses)", "feedback to the staff on how well the message is getting across", and "to judge performance (grade/degree classification)". However, "quality assurance (internal and external to the institution)" has been recently included in this set.

Another aspect would be confidence in the teacher, and s/he should create the best possible atmosphere and feeling in the classroom so that learners can overcome any unease they may feel since one learns best when s/he is relaxed. And this is not all, the student's involvement in the teaching and learning tasks is a basic ingredient for success in language learning.

The language background variable should also be taken into consideration to check not only the extent the groups of students differ from each other, but also to filter the motivation variable since the fact of taking voluntary English courses could be considered as connected to motivation.

If motivation exists, success in language learning is almost guaranteed (Ellis, 1985; Gardner, 1985). According to Gardner (1985), the different components of motivation are effort+setting and desire to achieve goals+attitudes. Effort is the first element in motivation and, according to Gardner, it may be triggered by several factors such as social pressures, a great achievement need, etc. Setting and desire to achieve goals is the component that serves to channel the effort. Finally, motivation will vary depending on the different attitudes individuals possess toward the learning of the language. Then, these two affective factors, attitude and motivation, should somehow be represented in this study since motivation plays a key role in SLA.

In conclusion to the opinions presented above, one may argue that ESP refers to the teaching of English in accordance to learner's specific interests and needs, which would imply some previous knowledge of general English on the part of the learner, though lately courses are designed for beginners as well. (Abrudan&Sturza, 2014)

4. Conclusion

This paper was written to show the ESP needs of the undergraduate and graduate students studying engineering sciences and to learn whether the present ESP courses match their needs. We should also keep in mind if there is no motivation, there would hardly be any results. So motivating students would be another subject for debate.

However, in order for an ESP program to be successful, it would not be sufficient to identify learners' needs, and create syllabuses and adopt methodologies that serve these needs; that is not the whole picture. One very important issue in the context of ESP is program assessment. Assessment involves an evaluation of the learners' ability to communicate effectively using the target language, as well as their ability to participate fully in the target discourse communities which have been initially defined as relevant to their needs. The formative purpose of such assessment is reflected in the possibility for the learners to use it as feedback on how they can improve their performance, and for the teacher on how s/he can adapt his/her teaching to better fit with the needs of the learners.

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