

Teaching ESP at the Institute of Nutrition, Food and Agro-food Technologies (INATAA), University Mentouri Constantine 1: from theory to practice



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Abstract

The Algerian Ministry of higher education and scientific research is increasingly encouraging the application of English exclusively in a tertiary education. This call upon a prompt reconsideration of the teaching of ESP in the different scientific disciplines. It is noteworthy that there is no agreed-upon syllabi from higher authorities for the teaching of ESP. Similarly, most ESP teachers are teachers of English and are not specialized in the students' field, so the syllabus they adopt might not go with the students' interest. This paper purports to provide insights on ESP instruction through the consideration of theoretical evidence as well as pedagogical practices. Major problems in ESP classrooms are investigated and the different stages of ESP course are developed from the theoretical and practical perspectives. The article would add valuable evidence to ESP research that is considered very limited in the Algerian context.

Keywords

ESP ;
food science and technology ;
needs ;
syllabus development.

الكلمات المفتاحية

اللغة الإنجليزية لأغراض
معينة؛
علم التغذية والتكنولوجيا؛
الاحتياجات؛
تطوير المنهج.

تدريس اللغة الإنجليزية لأغراض محددة في معهد التغذية و التغذية و التكنولوجيا الغذائية
الفلاحية (INATAA) ، جامعة منتوري قسنطينة 1: من النظرية إلى التطبيق

ملخص

تشجع وزارة التعليم العالي والبحث العلمي الجزائرية بشكل متزايد تطبيق اللغة الإنجليزية حصريًا في التعليم العالي. وهذا يستدعي إعادة النظر في تدريس اللغة الإنجليزية لأغراض معينة في التخصصات العلمية المختلفة. من الجدير بالذكر أنه لا توجد مناهج متفق عليها من الجهات العليا لتدريس اللغة الإنجليزية لأغراض معينة وبالمثل، فإن معظم معلمي هذه اللغة هم مدرسون للغة الإنجليزية وليسوا متخصصين في مجال الطلاب، لذا فإن المنهج الذي يعتمدونه قد لا يتماشى مع اهتمام الطلاب. تهدف هذه الورقة إلى تقديم رؤى حول تعليم اللغة الإنجليزية لأغراض معينة من خلال النظر في الأدلة النظرية وكذلك الممارسات التربوية. يتم التحقيق في المشاكل الرئيسية في الفصول الدراسية ويتم تطوير المراحل المختلفة من مادة اللغة الإنجليزية لأغراض معينة من المنظور النظري والعملية. سيضيف المقال أدلة إلى أبحاث في مجال اللغة الإنجليزية لأغراض معينة التي تعتبر محدودة للغاية في السياق الجزائري.

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Doi:

I- Introduction :

The status of English has been widely increased in the Algerian scientific community since the consideration of the language as the lingua franca of science and technology. English has been increasingly used in high impact journals; by the same token, it has started to be exclusively applied in some Algerian universities (e.g. The High School of Mathematics and the High School of Artificial Intelligence). These factors have created an urgent need for most of Algerian researchers to be proficient in English. The fact that English would be implied in Algerian universities in the years to come calls upon a prompt reconsideration of ESP syllabi at the university.

Algerian university students, in general, and students of scientific disciplines, in particular, need to develop proficiency in English to get involved with researchers and academics around the world either through scientific productions (articles) or through scientific events (seminars). However, one has to confess that ESP teaching practices would not satisfy these needs. This might be attributed to a number of problems.

II. Observed Problems in ESP teaching

A variety of problems have been raised in this paper. The problems are generally related to the teaching of ESP in a tertiary education. We classify these problems into three categories: those related to the teachers; those related to the learners and those related to the teaching methodology.

Teacher related challenges can be summarized as follows: most ESP teachers are teachers of language and are not specialists in the students' field: "ESP teachers are not specialists in the field, but in teaching English, their subject is English for the profession but not the profession in English" (Bojovic, 2007, p. 493). So designing courses that go with the students needs and increases their motivation is very challenging. Similarly, no training is offered to ESP teachers to develop skills with regard to effective ESP teaching practices. One cannot neglect the important role of teacher training for the success of ESP teaching. In Algeria, there is a very limited or no communication between ESP teachers from different universities and even from the same university. To this end, regular training, workshops and seminars should be provided to these teachers either in their country or abroad. Another quite noteworthy issue is the limited communication between ESP instructors and teachers specialists in the students field, despite its crucial significance in providing lessons that do satisfy the students' needs. Add to this, very little chances are given to ESP teachers to be hired in other departments outside their specialty, the result is scarce involvement of part-time teachers who might not show full commitment to their duties either because of the low salaries they are given or because of lack of motivation to work in a department other than the one they belong to.

Concerning students' related problems, we dare say that students of scientific disciplines are more concerned with the acquisition of French that is their second language and neglect the learning of any other foreign language. The reason is the limited time they are given and the huge amount of the lessons provided for their training (LMD), add to this having their courses in French that is considered perse a challenge for the majority. These challenges might impede the majority to practice English despite the significant role it plays in their academic and research career and in spite of the wide spread of applications for the learning of English.

Problems related to the methodology are mainly concerned with the course design, the activities selected and the materials used. At the institute of INATAA, and I believe in many Algerian universities, there is no common syllabus imposed by higher authorities, which has made ESP teaching purely a personal endeavor based on trial and error. The number of chapters, the content to be taught as well as the teaching activities are made from personal beliefs of ESP teachers who are not specialists in the students' field which would result in making the profession more challenging in achieving the students' needs. Moreover, the time allotted for the teaching of ESP is purely a matter of the administration without taking into consideration ESP teachers' opinion on what is required for the development of the students' language proficiency. There is a random distribution of time for the teaching of ESP for the different levels at the level of the institute. The distribution of time at the institute of INATAA for the different levels will be referred later in the paper. Even more, the large class size that is quite observed at the institute and many universities in the country that is the result of the lack of ESP teachers would impede effective teaching. At the institute of INATAA, the number of students in the Licence has dramatically increased after the launch of the LMD system. For example, in the past three years, it did not reach 100 students in the third year; however, the number exceeds 250 students this year. This makes it impossible to ensure effective language practice to satisfy the students' needs, especially that the majority of students attend a language class just to obtain extrinsic rewards (extra marks) rather than developing their proficiency.

II.1. Aims of the study

Through this conference, we aim to:

- To discuss criteria for the current curriculum design.
- To highlight students' needs on ESP teaching methodology (time, activities, techniques, etc.)

III. Teaching English for specific purposes (ESP) from theory to practice

ESP is a recent discipline within EFL and applied linguistics that flourished mainly in the 1960s. A variety of factors have led to the emergence of this discipline, namely: the shift of attention of recent theories of language to the learner and the globalization of English and its use as a lingua-franca for science, technology and economics. The result is the emergence of various needs for specialized language courses.

ESP is defined as the teaching of English for different purposes. According to Robinson (1991), learners study English "not because they are interested in the English Language or English culture as such, but because they need English for study or work purposes" (p. 2). Basturkmen (2006) adds that in an ESP course, "language is learnt not for its own sake or for the sake of gaining a general education, but to smooth the path to entry or greater linguistic efficiency in academic, professional or workplace environments" (p. 18).

When compared with a general English (GE) course, the ESP course is considered different in that it centers the learner needs while the former (GE course) focuses on the language itself, i.e. the different language skills and the cultural aspects of the language community. Robinson (1980, p. 6) avers that "(in GE) the language itself is the subject matter and the purpose of the course"; however, in ESP, English is the learnt to fulfill a set of skills on the basis of analyzing the learners needs". Another distinction is that ESP is directed to adult learners who are aware of their needs and what they need English for (Hutchinson & Waters, 1987), whereas GE is directed to pupils who need to develop knowledge of the language itself; Basturkmen (2006) states that "ESP s an essentially practical endeavour" (p. 9).

As far as characteristics of ESP are concerned, the latter focuses on the methodology and the discipline it is used for. For example, in our case, language for food science and technology, the texts and the activities should relate to the discipline. Food science students deal with the language (grammar, vocabulary), the skills and texts in relation to their discipline to accomplish objectives in relation to their needs for learning.

Regarding the types of ESP, Hutchinson and Waters' (1987) identified three categories: English for Science and Technology (EST), English for Business and Economics (EBE), and English for Social Studies (ESS). Each category is related to a specific field. They further argue that each category is perse divided into two subcategories: English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). An Example of EOP for science and technology is English for laboratory and the EAP is English for scientific research. While EOP trains students to engage in future jobs and develop proficiency required for the job, the objective of EAP is to train them to develop given skills in relation to making scientific research.

The ESP teacher in the classroom is "...a knowledge provider and a facilitator of students' learning and no more as a resourceful authority." (Kashani et. al. 2007, p. 85). The art of teaching goes beyond mere explanation of the language elements, which are supposed to have been developed in the secondary school; rather, the teachers focuses on applying the language in higher skills students need to develop, like writing a scientific paper in English, making a poster in English, summarizing long scientific productions. Therefore, teachers are invited to carefully choose the material to work with and the type of activities that go with the students' interest as well as the technique to apply in the classroom, whether individual work, pair work, group work, or whole class work.

A successful ESP course should go through a number of stages, according toDudley-Evans and Johns (1998). These stages are: needs analysis, course design, materials selection, teaching and learning, and evaluation:

III.1. Needs analysis

Needs analysis is the cornerstone of ESP course development. (Dudley-Evans and St. John, 1998). It is the process of collecting and analyzing data from learners as well as learning tasks to aid in the course amelioration. (Nunan,1988). According to Hutchinson and Waters (1987), NA is seen from the level of necessities, lacks, and wants. Dudley-Evans and St. John (1998) consider it as a more cyclical process; that is, once these needs are established, one can make decisions in adapting the course objectives, materials, the teaching and learning approach, and later on evaluation.

ESP course at the institute of INATAA for the three levels (Licence, Master1 and Master 2) is based on the results of the students' needs analysis. A needs analysis questionnaire was administered to doctoral students to investigate possible needs students may have for an ESP course. The sample was chosen for the belief that learners in graduation need to study English to apply it in higher levels (e.g. in post-graduation). The main results of NA questionnaire are: English is best learnt through scientific articles, basically through: reading scientific papers in the

field and identifying the main idea of the different sections; summarizing the content of the papers into shorter texts; listening to videos in the field to develop pronunciation; and making oral presentations on scientific issues (Elmechta, 2022). An example of applying needs analysis results in the third year is to read a long scientific papers and extract language aspects; in Master 1 through: reading scientific papers and identify the main idea of each paragraph; giving data and analyzing them; and in master 2 through reading many scientific papers and trying to write abstracts or similar papers through the application of the same methodology.

III.2. Course design and materials selection

A description of ESP course design at the institute of INATAA requires first providing an overview of the institute and how English is taught. The institute of Nutrition, Food and Agro-food Technologies (INATAA) situated in Constantine is a national institute that is an adjunct of the University Frères Mentouri Constantine 1. INATAA provides training in food science and technology for Licence, Master and Doctorate. Only one specialty in the Licence is offered 'food science' and four specialties are offered in Master: Food biotechnology, Food Technologies, Human Nutrition and Food Quality Management (GESQUAL). Doctoral education is related to the four Masters with a number of subspecialties.

Concerning the teaching of English at the institute for the LMD system, it is introduced in the final years of the trainings. For example, in Licence, it is taught in the third year. In Master 1, it is given in two specialties: Management of food quality (GESQUAL) and Food Biotechnology. In Master 2, it is a part of the program for the three masters: Food Technologies, Food Biotechnology and Human Nutrition.

As far as the time allotted for an English course is concerned, it is noteworthy that English is not given much attention as done in other disciplines, such as the Algerian higher education and scientific research like the High School of Mathematics and the High School of Artificial Intelligence; only 3 hours per week (45 hours as a total time in the whole semester) in Licence and from 1.5 to 3 hours (from 21 hours to 45 hours in Master counting both Master 1 and Master 2). Similarly, only one teacher at the institute who ensures the teaching of ESP for Licence and the different specialties in Master. The lack of ESP teachers at the institute and in all Algerian universities is quite noticeable. Teachers are not motivated to work outside their department and their lack of motivation might be because of economic or pedagogical reasons.

Regarding the methodology of teaching, it is noteworthy that the course design as well as the teaching materials are a personal endeavor. No specified content is imposed by the administration. The following is an example of the whole programme offered in Master 1, specialty of Food Quality Management (GESQUAL):

Semestre : 1

UE : Transversale (UET 1.1)

Matière : Anglais (LANGUE)

Objectifs de l'enseignement

Pratique de l'anglais pour la consultation de sites, la consultation de documents scientifiques et la présentation de travaux (résumés, articles complets, etc.)

Connaissances préalables recommandées

Anglais de base (enseignement dans le cycle secondaire, établissements privés spécialisés pour la mise à niveau)

Contenu de la matière

Programme présentiel :

1. Rappels des règles élémentaires de grammaire

2. Exercices à réaliser selon un échéancier

Travail personnel :

- Activité 1 : Elaborer un glossaire pour la matière LANGUE

- Activité 2 : Recherche et fiche de lecture pour la matière LANGUE

- Activité 3 : Ecoute, lecture et écriture

- Activité 4 : Compréhension écrite, apprendre nouveau vocabulaire.

Mode d'évaluation : Evaluation des travaux personnels

As for the course design for the different levels in INATAA, I have sought to provide a complementary ESP course starting with the third year of Licence until Master2. For example, in the third year (Licence), the students are offered basic elementary lessons of ESP like the notion of scientific English and where it is found, its characteristics; argumentation that is a characteristic and how it is made, criteria of writing a scientific article with comparing it to a media article, different modes of scientific productions stressing the writing of a CV and formal email for different topics at this level. Master 1 lessons are considered more advanced in comparison to those of the Licence as the aim is to develop skills in relation to the scientific method, something that is needed in their future career. Lessons of Master 1 include: reading and analyzing scientific articles, understanding meaning from the whole context, summarizing long scientific productions, raising critical questions, looking at an issue from different angles, interpreting data, extracting cause and effect relationship and learning how to make hypotheses. In Master 2, more advanced lessons are presented.

The students center focus on making scientific productions in English like writing abstracts for a scientific article, writing a research proposal, writing a scientific article and making a poster.

As our major concern is to make the students proficient is to use English as a means to an end (e.g. writing scientific productions in English), focus is more on language use rather than language usage. In other words, simple language lessons are not favored only in rare occasions (e.g. using the conditional when making a hypothesis, using the passive when describing the experiment). However, developing the different language skills is considered a necessity. For example, in the third year, the students practice reading through reading scientific papers; writing through giving examples of the different sentence structures; speaking through making oral presentations of arguments towards the consumption of a food product and listening through listening to authentic videos on how to make a successful CV or a captivating mail. In master 1, the students practice reading through reading many scientific papers in the field, writing through summarizing papers and producing reading sheets, speaking through making oral presentations of their summaries, and listening through listening to the teacher and to each other. In Master 2, these skills are practiced through reading articles in the field, writing research proposals, abstracts and articles, oral presentations of posters and listening to authentic videos, to the teacher and to classmates.

Concerning the materials selection, the students are provided with authentic materials like genuine articles written by researchers, real CVs and mails written by English people, real posters presented at conferences, etc.. One should note that these materials are carefully selected according to the students' level of proficiency. We made sure that the English presented in the videos, emails, and articles is simple, accessible to the students of the different levels, and in relation with to the students' field of study.

III.3. Teaching and learning

As a teaching/learning procedure, the activities vary from individual work, pair work, group work and whole class work. The choice of the type of the activity is based the nature of the activity perse, its degree of difficulty as well as the students' motivation. An example of the activities requiring individual work are: identification of some language aspects from an article (e.g. the passive, different tenses, different sentence structures, different types of sentences, etc.). Activities requiring pair work are illustrated through providing a summary of long texts, introducing arguments to convince consumers of the production of a given food product, and making reading sheets of articles. Group work activities are illustrated through making posters, writing scientific papers, and writing research proposals.

III.4. Evaluation

Evaluation in an ESP course is another critical concept that should be deeply considered in ESP. Evaluation does not only assess the knowledge acquired by the students, it also evaluates the effectiveness of the teaching strategies as well as accomplishment of the course objectives. Research on testing and evaluation has centered focus on the linguistic aspect more than real communicative values of language that an ESP course is designed for. "Language testers with very few exceptions, have ignored the ESP challenge" (Heaton, 1988, p. 88). It has been mentioned before that an effective ESP course is designed to enable particular learners to do particular things with language" and not language for its own sake (Hutchinson and Waters 1987, p. 145). That is to say, for an evaluation to be effective, it should involve meaningful tasks that involve language use rather than language usage, which is the students needs to develop proficiency in the language rather than receiving separate language tasks (e.g. grammar and vocabulary).

For the case of students at INATAA, I belief that good evaluation should go with the real objectives of ESP course, like assessing the learners' ability to read long scientific papers, to produce summaries, to make interpretations, to raise critical questions, to make solid hypotheses, to explain results, etc., that is the activities that the students really need to develop in an ESP course. Evaluation is also considered successful if it engages the students in the evaluation process. Learners learn best from their mistakes and others mistakes as well. So exchanging the papers with each other and evaluating them gives the students the chance to learn best, which is considered a real environment for learning.

The teacher's feedback is also considered crucial for the success of evaluation. According to Alderson and Waters 1982, p. 40)

Feedback on the success of activities is regarded as crucial to learners, and when this feedback can be given during a course –what has come to be known as formative evaluation– it can motivate learners, inform their future learning and help to make possible a truly communicative process of interaction and negotiation between learners, language and teachers.

As a teaching practice, I rely on formative evaluations during the whole semester through meaningful communicative activities that are related to the students' needs. After each chapter, the students are instructed to work individually, in pairs, or in groups (according to the type and level of each activity) to engage in a real task. For

example, for Licence students, I ask the students to write formal emails to different entities: university administration, institution laboratory, supervisor and to a company to different requests. The aim is to make them practice the language in real contexts where they choose different expressions according to the changing contexts. With Master 1 students, I ask them to read a scientific papers and make a reading card that summaries the main points of the papers. At the end of each activity, I ask them to exchange the papers and correct them and raise issues for class debate. Here the students receive feedback from their classmates as well as from the teacher and benefit from it. This type of activities will help to motivate the students, engage them more in the course and help them build a positive attitude towards the course in general and testing in particular.

IV. Conclusion

The present paper highlights major problems relative to ESP teaching/learning in Algerian universities. It provides a theoretical overview of different stages of ESP syllabus design. It also offers an illustration of these stages through a sample ESP course at the institute of INATAA for three levels Licence, Master 1 and Master 2. The aim is to share a teaching experience, provide insights on ESP pedagogy, and contribute to the development of ESP research that is still in its infancy in Algeria.

References

- [1]. Alderson, J. C.; Waters, A. (1982). "A Course in Testing and Evaluation for ESP teachers or How Bad Were My Tests?", in *Issues in ESP. Lancaster Practical Papers in English Language Education*. Vol. 5. Oxford. Pergamon
- [2]. Basturkmen, H. (2006). *Ideas and Options in ESP*. London: Lawrence Erlbaum Associates, Publishers. Mahwah, New Jersey: London.
- [3]. Bojovic, Milevica. (2007). "Teaching Foreign Language for Specific Purposes: Teacher Development". <<http://www.pef.uni-lj.si/atee/978-961-6637-06-0/487-493.pdf>> February 2010.0
- [4]. Dudley-Evans, T., & St John, M. (1998). *Development in English for Specific Purposes: A multi-disciplinary approach*. Cambridge: Cambridge University Press.
- [5]. Elmechta, L. (2022). Needs Analysis and ESP course design: A Case study of the Institute of Nutrition, Food and Agro-food Technologies. *Milev Journal of Research and Studies*, 8 (2)
- [6]. Heaton, J. B. (1988). *Writing English Language Tests*. London and New York. Longman.
- [7]. Hutchinson, T., & Waters, A. (1978). *English for Specific Purposes: A learning-centered approach*. Cambridge: Cambridge University Press.
- [8]. Kashani, M. Joanis, E. Kuhn, R. Foster, G. and Popowich, F. (2007). Integration of an Arabic Transliteration Module into a Statistical Machine Translation System. In *Proceedings of the Second Workshop on Statistical Machine Translation*, Prague, Czech Republic.
- [9]. Nunan, D. (1988) *Syllabus Design*. Oxford University Press.
- [10]. Robinson, P. C. (1980). *ESP (English for Specific Purposes)*. Oxford: Pergamon Press.
- [11]. Robinson, P. (1991). *ESP Today*; Herefords Shire. Prentice Hall International Ltd.