

Research commitment and perspectives in English for Specific Purposes: from needs to implementation

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Abstract: *This paper provides an account of course implementation and research perspectives in ESP, EST and EAP at Constantine University and other Eastern Algeria universities. It sums up course objectives and content that lead to research direction towards determining specific needs and relevant problem solutions according to context requirements. It presents the results of research projects that have been and are still conducted by classifying them according to Needs Analysis, Teaching/Learning Purposes, Methodological procedures of problem solution, Research Outcomes in specific, professional, scientific, technological, and Academic contexts.*

Introduction

Since the emergence of needs analysis in the field of applied linguistics and language teaching, a huge amount of research categorized Needs as a starting point and favored two major developments in teaching/learning English as a Foreign Language. On one hand, the specific purposes lead to the distinction of sharper outcomes in various fields and learning contexts and, on the other hand, the learning process gave rise to methodologies and pedagogical tools most relevant to learners and learning contexts

while target situation discourse gave rise to generic trends in discourse analysis. Within these two major trends, this paper aims to shed light on practical aspects of research in English for Specific Purposes (ESP, henceforth) that have been carried out by Algerian researchers during the last three decades.

These research achievements are rarely consulted and almost never mentioned as reference resources in academic writing of theses or in design and implementation of ESP, EAP, and EST courses. There is, unfortunately, a preference for International publications at the expense of the authentic National research production that may be due to the editing and publication constraints. Therefore, the study values what has been achieved so far through some realistic and authentic research projects carried and determines the identified types of Needs, Purposes, and the suggested methodological implementations most relevant to every particular research context. Consequently, it sets forth a number of research perspectives and opportunities of exploring purposive domains of applications in the socioeconomic context.

1. Needs Analysis

Just after the work of Munby (1978) on ‘Communicative Syllabus Design’, early Algerian research projects (Miliani, 1985; and Hamada, 1990), for example, focused their investigation on needs analysis and course design for students of economics. While Miliani considered that the first year students of economics do not have an appropriate proficiency level to study economics in English and need to attend a general English course during the first two years, Hamada administered a placement test and designed a reading comprehension

course focusing specifically on cohesion aspects of economics discourse.

Relying on proficiency tests and surveys, other researcher projects targeted other academic fields and contributed in the development of English for Science and Technology (EST, henceforth) and English for Academic Purposes (EAP, henceforth). The analysis of learners' felt needs gave a better evaluation of their proficiency level, the target social, academic and professional contexts. Focus on the learner was a new direction towards learning needs that determined the required language skills, strategies and competences (Benhamlaoui, L 2011; Chaira, 2012; Lassoued 2012; Rouaghe, 2012; and Krarzia, 2013).

The Higher education institutions also expressed their concern about the ESP / EAP courses; surveys of their aims and goals of including English in the undergraduate and postgraduate programs gave a set of general goals to be achieved. The former were basically oriented towards academic communication skills like reading comprehension and writing skills which would in turn serve the transfer of scientific knowledge and technology. However, the ESP / EAP courses that were administered at these institutions had major shortcomings because of their low density (an average of 2 hours per week), inadequate contents, and inappropriate methodology that would satisfy learners' and learning needs. Most of these ESP/EAP courses were scheduled late afternoon and taught by non trained teachers. In these cases, achievement tests acted as an evidence for teachers, students, and decision-makers that the course took place and that all students passed the exams no matter what the proficiency level was.

The above mentioned studies widened the scope of research under our supervision to reconsider ESP and EAP needs analysis from a contextual perspective to determine the required output profile of learners, the expected level of proficiency, and the specific features of discourse being used in those contexts. This tendency of making a link between learning purpose and language use (Widdowson, 1993; Hamada, 2007) gave rise to explorations and investigations of language use in context in order to determine the channel of communication, the formality of discourse, and the type of genre. As these studies focused on target situation needs, the pragmatic determination of purposes, learning preferences, course contents, and performance outcome became much more specific to every particular study (Brighet, 2009; Rouagh, 2011). Although this situation of research may seem too problematic, it represents exactly the specificity of ESP as a heterogeneous field where it is sometimes better to avoid generalisations as we shall see below.

2. Purposes

Although both undergraduate and postgraduate courses include English as a Subject to be taught on a weekly basis of at least 2 hours per week for all academic disciplines, teaching English for academic disciplines had to take into account the difference in the general purposes of English for the humanities as distinct from English for the hard, exact sciences. Furthermore, the recent reforms of higher education courses introduced much more requirements regarding research methodology and academic writing (Hamada, 2007; 2014). Under this additional pressure of specificity and precision, some

purposes that used to be taken for granted as valid objectives are no longer reliable for the design of ESP, EAP or EST courses.

The sharp distinction of learners' felt needs, learning styles, and discourse features and channels provided the researchers with enough pragmatic alternatives for the design of course content and methodology. For example, the teaching of research methodology in the general BA and Master programs turned out to be a focus on study skills for better achievements in academic writing (Bediaf, 2016; Guendouz, 2016; Rouabah, 2016). Furthermore, the teaching of applied language studies across disciplines opened the scope of research to the introduction of genre analysis parameters (Swales 1990) as tools of discourse classification and course design (Hamada, 2014). In the technical, scientific and professional domains, the purpose of course design depended on modern media and channels of channels of communication (Benhamlaoui, M, 2010; Rouagh 2011; Chaira 2012; Lassoued, 2012; and Boudraa, 2013).

On demand of three professional companies, specific courses were tailored to satisfy the needs of their managers and staff members according to specifically determined objectives (during the period of 1990/2005). In the case of *Air Algeria*, the staff members and air traffic controllers needed to orally communicate with their interlocutors let them be professionals or just tourists. However, in the case of *Sonelgaz* and *Enasel* (respectively National company of Electricity and Gas, and National Company of Salt) the participants needed to travel, negotiate and sign contracts with foreign partners; their objectives were determined on both informal and formal discourse features.

3. Methodological procedures of problem solutions

Doing research seems to be much more problematic in ESP than other areas; the diversity of research contexts in terms of space and time, age and proficiency level of participants, learning styles and strategies, and target situation have multidimensional impacts of research in action. Furthermore, the cooperative and collaborative roles of research actors as participants, researchers, and research institutions have to be carefully coordinated by the supervisor (Hamada, 2011). Every specific research setting requires specific methodological measures depending on the statement of the problem and the adequate research tools, as we shall see below.

Thus, analytic and explorations studies relied on assumptions and research questions to find out solutions to the stated problems. Their research tools consisted mainly of proficiency tests and questionnaires administered to a sample population of learners, teachers, decision makers and/or professionals. However qualitative and evaluation studies relied, in addition to surveys and tests, on observation grids and evaluation checklists. Both types of fruitful studies ended up with the specification of objectives, the pedagogical implementation of qualitative suggestions of teaching / learning units, in addition to some recommendations.

Much better studies were those that applied quasi-experimental or true experimental methodology; they relied on hypotheses that expressed observables and measurable variables. Their methodological procedures used surveys and proficiency tests for exploration and applied pre-test, post-test experimental design with control and experimental groups of participants. Researchers' commitment to the research act appears clearly in the implementation

of the experiment as a manipulated independent variable that would enhance and/or produce a positive effect on learners' outcome as a dependent variable. In some particular corpus based studies, the research methodology relied on established criteria of corpus analysis and ended up with the characteristic features of the genre at hand. These studies are classified according to their purposes and outcomes in the following section.

4. ESP research outcomes

Whatever the problem statement of research projects, their benefits are reflected in their research outcome. Depending on their purposive focus and research limitations, some studies could at least determine one of the factors impacting ESP in general and/or EST and EAP courses in particular. As a whole, some studies put a particular theory into practice while other studies combined pragmatically some alternatives to achieve their research aims.

4.1. ESP/EST courses

Economics and business studies represent take much more space in ESP studies than any other field of the humanities. The immediate socioeconomic environment of professional and business requirements define better learners' purposes in terms of the English language proficiency during pre-service and in-service education and career development. In addition to earlier studies like Miliani (1984) and Hamada (1990) who focused on course design, recent studies gave a much more communicative and pedagogical dimension to course implementation. The impact of 'learning purpose and language use' (Widdowson, 1993) brought a closer correlation between what learners need language for and the contextual use of

that language in real life situations. For example, as a response to learners' felt needs and job requirements of economics students, Benhamlaoui, L (2011) suggested a scenario based instruction to create a dynamic communicative classroom where the participants could perform roles of interaction, information exchange and business negotiation. In teaching English for students of commerce, Krarzia (2013) developed a task-based syllabus for both oral and written communication purposes relying on authentic materials like business letters, emails, advertisements, leaflets, contracts and booklets.

Given the development in communication channels and networks, these pedagogical innovations suit better the modern job requirements than those determined by Miliani and Hamada in the 1980's and provide the learners with collaborative / cooperative and affective alternatives of for learning and achieving better language performance. For example, in a professional context where learners develop a much better interest in their occupational purposes, Rouaghe (2012) found out that Algerian wholesale import and export businessmen do not need much of business English as they do need conversational English that helps them travel around the world, meet foreign business partners, negotiate contracts, make hotel reservations, pay their bills, etc... Instead of designing a business English syllabus, Rouaghe (ibid) responded to her learners needs through the design of a social survival syllabus to develop their oral communications skills.

Within the scope of teaching EST, Trimble's (1985) distinction of rhetorical functions and logical orders in scientific discourse still provide a practical framework of applications in recent case study

research. The scope is characterized by generic features, as initially determined by Swales (1990) and improved by many other scholars, when it takes into consideration altogether the communicative event, purpose, shared knowledge between producer and audience, and linguistic norms, conventions and features. The practical commitment of Algerian researchers to higher education and technical scientific fields gave rise to a number of case studies in an attempt to improve the teaching/ learning process on one hand and explore the professional / commercial aspects of science and technology on the other hand.

In the teaching learning process of EST, Boudraa (2012) explored computer science engineers' needs from the students', researchers', and decision makers' perspectives, in addition to text analysis. Her study distinguished reading comprehension tasks as immediate needs of the undergraduate students and communicative reading / writing performance for graduating engineers; she consequently developed a topic type, unit based, syllabus for students of computer sciences.

As course evaluation is a significant tool of checking the validity and reliability of EST teaching materials, Lassoued (2012) adapted and developed a textbook evaluation checklist to measure the suitability and effectiveness of the textbook '*English for Science and Technology*', used in the Algerian Institute of Petroleum. The study concluded that this traditional material, dating from the 1970's, no longer satisfies the staff and the students' present needs to meet quality requirements of the market and thus take shares of other markets in other countries such as Nigeria, Niger and Mali. Although the textbook focused on developing the English language proficiency

and vocabulary skills in petroleum technology, it does not provide communication skills most necessary to cover the modern petroleum industry and business expansion; She provided a multi-task oriented syllabus, based on authentic materials and goal-oriented activities.

As science and technology do not flourish without a marketing discourse, the user and service manuals of household equipment and machines are published in at least three languages around the world. The English language version of these manuals has been subject to Bright (2009 and 2016) generic analysis of instructional discourse. The study determined that even if the structure of the imperative mood implies the function of instruction is taken for granted, in the user and service manuals of household equipment and machines, the functions of the imperative vary according to purpose and audience, and may imply warning, security, warranty, repair, and customer claims. The significance of the study lies in the fact that, according to the use of English in a globalised market, Algeria needs to produce, export and adapt a marketing policy that would attract consumers of its products worldwide in the English language.

Within the same scope of industry and business language studies, Chaira (2012) analysed needs and performance outcome of teaching EST to health and industrial safety students at the Professional Training Institute of Batna and determined that, in addition to communication in the four skills, the trainees needed translation exercises to cope with their future professional tasks on the workplace. A good proficiency level was then required to improve learners' ability of information transfer while dealing with authentic documents most relative to technical equipment, chemical and material substance of products and healthy and security measures.

Furthermore, those trainees needed to transfer and translate their knowledge to their immediate and future professional community of staff members and co-workers.

4.2. EAP and Academic Writing Courses

Since 2004, the Algerian Higher Education reforms gave us the opportunity to design and implement language course at the BA and Master program levels. Our contribution in the field of Applied Language Studies came up with a theoretical overview and practical application of generic analysis of academic and scientific discourse (see Hamada, 2007 and 2014). An EAP/EST program course for master students was hence implemented to cover significant issues in different academic and scientific domains. The impact of this contribution was positive as it had a pedagogical echo at conferences held at Biskra University in 2012, and Msila and Adrar Universities in 2013 and served as an implementation of academic discourse analysis Master program at the University of Bejaia in 2015. Furthermore, it opened specific research routes to technical discourse like Brightet (op.cit), and directed other researchers to explore academic discourse, as we shall see below.

The application of academic writing norms and conventions to students' essays, research articles and dissertation writing does not come exclusively from the writing skill and the study of research methodology alone. Academic writing requires the processing of both cognitive and metacognitive information, the expression of propositional and non-propositional discourse and metadiscourse moves in a coherent and argumentative writing to reach the members of the discourse community (Hamada, 2014). In this line of thought, Kheloufi (2009) explored the generic structure of 15 biology research

articles to determine their ‘prototypicality’ and their various communicative features that are frequently used by the biology research community. The researcher came out with practical pedagogical applications of genre analysis to provide students of biology with valid description of communicative features occurrence and help them make inferences while reading research articles, take notes, and write their own research papers.

Developing a writing ability of academic research articles is based on the BA level where undergraduate students learn basic writing and research skills in a Research methodology course. The acquired skills are supposed to help them write exam compositions and essays before they pass their BA and start the Master program course in Applied Language Studies. In this perspective, Bediaf (2016) carried out a study on students’ drafting, revising and editing academic writing. He aimed to explore how ‘drafting operations work on creating an ‘acceptable piece’ within academic writing contexts’ (Bediaf, 2016: 3) by analysing undergraduate students’ drafts and final exam papers. His study revealed that the cognitive and metacognitive process of academic writing plays a major role in composition and essay writing, however it is always subject to individual differences like intelligence, linguistic competency, style, preparation, and aptitude.

At the Master dissertation writing task, the proficiency level is higher than composition and essay writing. The different sections of a dissertation require careful design and organisation before putting ideas into words. Within this perspective Guendouz (2016) and Rouabah (2016) explored Master dissertation ‘Introductions’ and ‘Abstracts’, respectively. Both studies used Swales’ (1990 and 2004)

move structures to apply a corpus-based analysis on a sample of Master dissertations. On one hand, Guendouz (2016: 123) found out that the corpus-based analysis of the dissertations' introduction sections, according to Swales's (2004) CARS model (Creating A Research Space), revealed that the rhetorical devices employed by the students were problematic to the student writers. Using the same CARS model, On the other hand, Rouabah's (2016: 120-121) corpus-based analysis of discourse moves in Master dissertations Introductions revealed a relative application of the model as student writers use a few moves at the expense of others in their introductions. Both studies consequently suggested that the students needed to be familiarized with the model's linguistic manifestations and communicative purposes associated with each move.

4.3. Research Methodology and ICT

It could be noticed from the studies mentioned above that research methodology and study skills courses at the BA and Master programs did not provide enough time and space for practice and extensive applications. The limited course density (1 hour and 30 minutes per week) and the large classes did not provide the learners with enough learning opportunities. Taking advantage of modern Information and Communication Technology and possible access to Internet, the implement of these LMD program courses seemed to be a suitable pedagogical alternative. However, this alternative had to be analysed according to learners needs, and designed and experimented in a teaching / learning context. Consequently a quasi-experimental study was carried out to implement a research methodology course for BA students through the use of Blended learning that relied on a social web forum, like Facebook, for learners outside classroom

sessions in addition to their class sessions. The results of the study (Kadri and Hamada, 2016) revealed that blended learning boosted learners' motivation, autonomy, and commitment to the learning tasks, fostered interaction, prompted feedback, lowered students' anxiety, and improved their critical thinking skills.

4.4. Translation

Although many studies in ESP contexts revealed the necessary implementation of a particular course in English, in a few EST contexts the learners' needs emphasized the use of translation. For example, in Chaira (2012), the trainees of Health and Industrial Safety institute (see section IV-1, above) expressed their need to study translation of specialist lexis that would help them addressing their workplace partners in Arabic or French. Within the same trend of using translation in scientific domains, the context of English for Medical studies is of particular significance because medical sciences are taught in French in all Algerian universities.

In the study of Benhamlaoui (2010), Algerian doctors expressed their need to read and write about medical topics in English; however, given their low proficiency in English, they relied on online machine translation (like free online GOOGLE translate, REVERSO or SYSTRAN) from English to French and vice-versa to read and write scientific documents. However, the study revealed that the free online translations have major problems of cohesion and coherence at the levels of word order, tense, gender and number agreement, reference, etc.... When compared to human translation, the study revealed that knowledge of the language culture determines the translation quality of text coherence to a great extent. Consequently, Benhamlaoui (2017) suggested a cross cultural and generic analysis of French and

Englishmedical text translation to implement and improve the online translation versions at the levels of cohesion and coherence.

5. Discussion of Results and recommendations

From the analysis of needs, research in ESP takes divergent but significant directions to satisfy the identified purposes and using appropriate procedures. A research project may focus on immediate learners needs, pedagogical practices, and course and syllabus design and implementation, or target communication context of discourse and genre features. If we consider What has been achieved so far, the various studies, mentioned above, show that there is real fruitful research in terms of individual career development of researchers (getting a degree) who provide, at the same time, solutions to specific problems or design relevant courses and methodologies that respond to specific situations needs. However, there is little or no coordination of research efforts to enhance teamwork in research laboratories around the country. Despite these efforts, EST is still limited to academic / training settings because of French prominence in Algerian business, technology and industry

We can also notice that there are very few publications as almost all research works target degrees and qualifications; Algerian researchers still rely on foreign references and neglect Algerian research publications (theses and research articles). Although a pioneer publication of Oran ESP Journal was initiated in the 1990's by professor Miliani and two ESP conferences were held in Oran 1992 and Sfax (1995), the ESP research and publication endeavor did not progress because of the socioeconomic constraints of the 1990's. If we want to encourage research action in ESP nowadays, we need

to focus on seeking opportunities for research projects (industry and agriculture, business, tourism, marketing and advertising, professional education, teacher training etc...) and co-editing of research findings. To do so, we need to organise research teams, adhere to research laboratories, and explore financial resources and sponsoring from the socioeconomic contexts. We can, then, claim for an English compulsory leaflet, manual, document, certificate, or notice from all Algerian companies and their products. This will be an opportunity for Algerian companies to export their products and services. When research tasks are accomplished, we should organise symposiums and seminars for a wider public audience who would be interested in the research findings. Consequently, we would be in a position to develop an advertising body (websites) and register all research publications on Google Scholar Citation Index to value research findings. Creating an Algerian data base for courses and training programs (at the disposal of economic, financial and industrial companies' Human resources and professional training) seems to be a compulsory achievement to get all socioeconomic partners interested in our research activity.

Conclusion

In sum, the current ESP research in Algeria noticeably reflects the realities of reforms undertaken in the higher education system. The impact of various case studies shows that almost all research projects attempted to satisfy learners' needs through relevant design of teaching / learning objectives, course design and implementation / evaluation, and the practical use of modern ICT means. To answer

the research question –raised in this paper, we can say that the introduction of teaching methodology and academic writing subjects at the level of BA and Master programs enhanced and improved students research and academic writing skills. Furthermore, a number of studies proved to be efficient but have to keep up with the requirements and perspectives of development in the socioeconomic context. The recent dynamic social and economic changes provide enough opportunities for researchers to explore, analyze and solve problems that require the national and/or international communicative use of the English language.

References:

- Bediaf, A. K.** 2016. *The Importance of drafting Use before Delivering Final Academic Writing Product*. Unpublished Magistere Dissertation, ENS Constantine
- Benhamlaoui, L.** 2011. *The Role of Scenario-Based Instruction in Enhancing Business English Students' Motivation: the Case of 4th Year Students in the Management Department*. Unpublished Magistere Dissertation, University of Sétif
- Benhamlaoui, M.** 2010. *Problematic Aspects of Man Vs Machine Translation in Medical Texts*. Unpublished Magistere Dissertation, University of Annaba
- Benhamlaoui, M.** 2017. Cohesive Features in Automatic Translation of Medical Texts. In *El-Tawassol. N° 52, 2017*, Annaba University Publications
- Boudraa, A.** (2013). *Course Design and Evaluation in English for Computer Sciences*. Unpublished Doctorate Thesis. University of Annaba
- Bright, H.** 2009. *Expressing Imperatives in Instructional Discourse; a Case Study of User Manuals*. Unpublished Master Dissertation, University of Constantine
- Bright, H.** 2016. Information Structure in Technical Communication; a Case of User and Service Manuals; In *Revue des Science Humaines*, N° 43: 57-70, University of Biskra.
- Chaira, F.** 2012. *An ESP Programme Evaluation. The Case of Health and Industrial Safety Institute- Batna University*. Unpublished Magistere Dissertation, ENS Constantine

- Guendouz, N.** 2016. *The Rhetorical Structure of Introductions in Master Dissertations of Language Sciences Students at University of Constantine 1. A Corpus-Based Analysis*. Unpublished Magistere Dissertation, ENS Constantine
- Hamada, H.** 1990. *Developing a Reading Comprehension Syllabus for Students of Economics; a Case Study*. Unpublished Magistere Dissertation, University of Constantine
- Hamada, H.** 2007. The impact of Information Processing and Discourse Comprehension Strategies on materials design in teaching English. In *Revue des Sciences Humaines N° 27: 45-60*. Constantine University publications.
- Hamada, H.** 2011; Distance and E Supervising; Experiences Results. In *Revue des Sciences Humaine N° 35: 99-105*. Constantine University publications
- Hamada, H.** 2014. Genre Studies of Academic Discourse: Some Implications for Teaching EAP and EST. In *El-Tawassol, N°37: 50-58*. Annaba University Publications.
- Kadri, S & Hamada, H.** 2016 Blended Learning in Academic Writing: Realities and Perspectives. in *Revue des Sciences Humaines.N°45, Juin 2016– Tome A: 07-32* Constantine University Publications.
- Kheloufi, N.H.** 2009. Communicative Features of Generic Discourse in Biology Research Articles. Unpublished Master Dissertation, University of Constantine
- Krarzia, N.** 2013. *Designing a Syllabus for ESP Learners: the Case of Commercial Studies Students at the University of Constantine*. Unpublished Magistere Dissertation, University of Constantine
- Lassoued, S,** 2012. *Evaluation of English for Science and Technology Textbook Used for Algerian Institute of Petroleum*. Unpublished Magistere Dissertation, University of Annaba.
- Munby, J.** 1978. *Communicative Syllabus Design*. Oxford University Press
- Miliani. M.** (1984). *Objectives, Curriculum Design and Methods for the Teaching of ESP with Special Reference to the Teaching of English in the Institute of Economics Sciences*. Unpublished PhD thesis. University of Wales.
- Rouabah, N.** 2016. *A Corpus-based Study of EFL Magister Dissertation Abstracts. The Case of ENSC Postgraduate Students*. Unpublished Magistere Dissertation, ENS Constantine

- Rouaghe, F.** 2011. *Traders' Needs and Aims of English Language Use in Commerce: A Case Study of El Eulma Traders at–Dubai- Hypermarket.* Unpublished Magistere Dissertation, University of Annaba
- Swales, J.** 1990. *Genre Analysis: English in Academic Research Settings.* Cambridge University Press
- Swales, J.** 2004. *Research Genres: Explorations and Applications.* Cambridge University Press
- Trimble, L.** 1985. *English for Science and Technology; A Discourse Approach.* Cambridge University Press
- Widdowson, H.G.** 1983. *Learning Purpose and Language Use.* Oxford University Press.