The Role of Internet in ESP Contexts

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Abstract

As we enter a new millennium, the ability and the need to understand and communicate with each other has become increasingly important, at times even urgent. An international exchange of ideas from environmental issues such as thinning ozone layer to medical topics such as genetic engineering, to political crises- is essential. To meet these communication needs, more and more individuals have highly specific academic and professional reasons for seeking to improve their language skills: for these students, courses that fall under the heading English for Special Purposes (ESP) hold particular appeal.

Nowadays, Computers have become indispensable in the contemporary world as the powerful means for communication and education. Learners’ interest to learning languages has been enforced by the availability of the Internet, which provides easy access to every possible kind of information and serves as an effective tool to facilitate learning. The concept of Information and Communication Technology (ICT) has been associated with the use of the Internet and implies the interactive use of the World Wide Web for education. The Internet presents a reliable and continuously updated source both of general and specific interest materials that are invaluable to learners. This increasing emphasis and promotion of autonomous learning of foreign languages and the widening role of online technologies have lately become the major features in language teaching in tertiary institution. Therefore, in order to make the language learning process a more motivating experience instructors need to put a great deal of thought into developing programs which maintain student interest and have obtainable short term goals.

Key Words: ESP, Internet, Information and Communication Technology(ICT)

1.0. Overview

As we enter a new millennium, the ability and the need to understand and communicate with each other has become increasingly important, at times even urgent. An international exchange of ideas from environmental issues such as the thinning ozone layer and the warming of the planet, to medical topics such as genetic engineering, to political crises- is essential.

To meet these communication needs, more and more individuals have highly specific academic and professional reasons for seeking to improve their language skills: for these students, usually adults,
courses that fall under the heading English for Special Purposes (ESP) hold particular appeal.

ESP programs focus on developing communicative competence in a specific field, such as aviation, business or technology. Some course prepare students for various academic programs like English for science and technology. Others prepare students for work in fields such as law, medicine, engineering, tourism or graphic design. Many courses, now focus on the Internet, how to use its vast web of information for academic or professional purposes, and what ethics and conventions govern use of that information.

1.1. Introduction

"ESP is a major activity around the world today. It is an enterprise involving education, training and practice, and drawing upon three major realms of knowledge: language, pedagogy, and the students' participants' specialist areas of interest." (Robinson, 1991, p.1)

The full name of "ESP" is generally given as "English for Specific Purposes", and this would imply that what is specific and appropriate in one part of the globe may well not be elsewhere. Thus, it is impossible to produce a universally applicable definition for ESP. Stevens (30, p.109) suggests that "a definition of ESP that is both simple and watertight is not easy to produce."

According to Robinson (1991), there are many types of ESP and many acronyms. Two main types are EOP (English for Occupational Purposes), involving work-related needs and training, and EAP (English for Academic Purposes), involving academic study needs. Cutting across there is EST (English for Science and Technology), which can refer to both work and study-related needs. Another type is EGP (English for General purposes) and recently the new type of ESP is EIP (English for Internet Purposes).

One of the problems that faces many English as a second language (ESP, ESL, EFL, TESOL, TOEFL, etc.) teachers is that students expect the teacher to be incredibly knowledgeable about everything.

According to Nazarova (1996), for many years ESP instruction was limited to training special lexicon
and translating numerous texts. Of course, such methods didn't reflect students' interests and resulted in low learner motivation and poor participation. Thus, designing a course that can best serve learners' interests and needs is an obstacle for many instructors. How can teachers develop a new course? Where should they start? What can be done about students' poor motivation? How should teaching materials be selected? These are some of the questions that are often asked by many teachers.

2. Literature Review

2.1. The Origins of ESP

Certainly, a great deal about the origins of ESP could be written. Notably, there are three reasons common to the emergence of all ESP: the demands of a Brave New World, a revolution in linguistics, and focus on the learner (Hutchinson & Waters, 1987).

Hutchinson and Waters (1987) note that two key historical periods breathed life into ESP. First, the end of the Second World War brought with it an "..... age of enormous and unprecedented expansion in scientific, technical, and economic activity on an international scale for various reasons, most notably the economic power of the united states in the post-war world, the role [of international language] fell to English" (p.6). Second, the Oil Crisis of the early 1970s resulted in Western money and knowledge flowing into the oil-rich countries. The language of this knowledge became English.

The general effect of all this development was to exert pressure on the language teaching profession to deliver the required goods. Whereas English had previously decided its own destiny, it now became subject to the wishes, needs and demands of people other than language teachers (Hutchinson & Waters, 1987, p.7).

The second key reason cited as having a tremendous impact on the emergence of ESP was a revolution in linguistics. Whereas traditional linguists set out to describe the features of language, revolutionary pioneers in linguistics began to focus on the ways in which language is used in real communication. Hutchinson and Waters (1987) point out that one significant discovery was in the ways that spoken and written English vary. In other words, given the particular context in which English is used, the variant of English will exchange. This idea was taken one step farther. If language in different
situations varies, then tailoring language instruction to meet the needs of learners in specific contexts is also possible. Hence, in the late 1960s and the early 1970s there were many attempts to describe English for science and technology (EST). Hutchinson and Waters (1987) identify Ewer and Latorre, Swales, Selinker and Trimble as a few of the prominent description EST pioneers.

The final reason Hutchinson and Waters (1987) cite as having influenced the emergence of ESP has less to do with linguistics and everything to do psychology. Rather than simply focus on the method of language delivery, more attention was given to the ways in which learners acquire language and the differences in the ways language is acquired. Learners were seen to employ different learning strategies, use different skills, enter with different learning schemata, and be motivated by different needs and interests. Therefore, focus on the learners' needs became equally paramount as the methods employed to disseminate linguistic knowledge. Designing specific courses to better meet these individual needs was a natural extension of this thinking. To this day, the catchword in ESL circles is learner-centered or learning-centered.

2.2. The Meaning of the Word 'Special' in ESP

One simple clarification will be made here: special language and specialized aim are two entirely different notions. It was Perren (1974) who noted that confusion arises over these two notions. If we revisit Mackay and Mountford's restricted repertoire, we can better understand the idea of a special language. Mackay and Mountford (1978) state:

The only practical way in which we can understand the notion if special language is as a restricted repertoire of words and expressions selected from the whole language because that restricted repertoire covers requirement within a well-defined context, task or vocation (p.4).

On the other hand, a specialized aim refers to the purpose for which learners learn a language, not the nature of the language they learn (Mackay & Mountford, 1978). Consequently, the focus of the word 'special' in ESP ought to be on the purpose for which learners learn and not on the specific jargon or
2.3. Key Notions about ESP

In this part, according to Gatehouse (2001), three key notions will be discussed. They are as follows: a) the distinctions between the absolute and variable characteristics of ESP, b) types of ESP, c) characteristics of ESP courses.

2.3.1. Absolute and Variable Characteristics of ESP

Ten years later, theorists Dudley-Evans and St John (1998) modified Strevens' original definition of ESP to form their own. Let us begin with Strevens. He defined ESP by identifying its absolute and variable characteristics. Strevens' (1988) definition makes a distinction between four absolute and two variable characteristics:

I. Absolute Characteristics:

ESP consists of English language teaching which is:

- designed to meet specific needs of the learner;
- related in content (i.e. in its themes and topics) to particular disciplines, occupations and activities;
- centered on the language appropriate to those activities in syntax, lexis, discourse, semantics, etc., and analysis of this discourse;
- in contrast with General English

II. Variable Characteristics

ESP may be, but is not necessarily:

- restricted as to the language skills to be learned (e.g. reading only);
- not taught according to any pre-ordained methodology (pp.1-2)

Anthony (1997) notes that there has been considerable recent debate about what ESP means despite the fact that it is an appropriate which has been widely used over the last three decades. At a 1997 Japan Conference on ESP, Dudley-Evans offered a modified definition. The revised definition he and
St. John postulated is as follows:

I. Absolute Characteristics

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

II. Variable Characteristics

- ESP may be related to or designed for specific disciplines;
- ESP may use, in specific teaching situation, 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 for learners at secondary school level;
- ESP is generally designed for intermediated or advanced students;
- Most ESP courses assume some basic knowledge of the language system, but it can be used with beginners (1998, pp. 4-5).

Dudley-Evans and St. John have removed the absolute characteristic that 'ESP is in contrast with General English' and added more variable characteristics. They assert that ESP is not necessarily related to a specific discipline. Furthermore, ESP is likely to be used with adult learners although it could be used with young adults in a secondary school setting.

As for a broader definition of ESP, Hutchinson and Waters (1987) theorize, "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" (p.19). Anthony (1997) notes that, it is not clear where ESP courses end and general English courses begin; numerous non-specialist ESL instructors use an ESP approach in that their syllabi are based on analysis of learner needs and their own personal specialist knowledge of using English for real communication.
2.3.2. Types of ESP

David Carter (1983) identifies three types of ESP:

- English as a restricted language
- English for Academic and Occupational purposes
- English with specific topics

The language used by air traffic controllers or by waiters are examples of English as a restricted language. The second type of ESP identified by Carter (1983) is English for Academic and Occupational purposes. In the 'Tree of ELT' (Hutchinson and Waters, 1987), ESP is broken down into three branches: a) English for Science and Technology (EST), b) English for Business and Economics (EBE), and c) English for Social Studies (ESS). Each of these subject areas is further divided into two branches: English for Academic Purposes (EAP) and English for Occupational Purposes (EOP).

An example of EOP for the EST branch is 'English for Technicians' whereas an example of EAP for the EST branch is 'English for Medical Studies'.

Hutchinson and Waters (1987) do note that there is not a clear-cut distinction between EAP and EOP: "people can work and study simultaneously; it is also likely that in many cases the language learnt for immediate use in a study environment will be used later when the student takes up, or returns to, a job" (p.16). Perhaps this explains Carter's rationale for categorizing EAP and EOP under the same type of ESP. It appears that Carter is implying that the end purpose of both EAP and EOP are one in the same: employment. However, despite the end purpose being identical, the means taken to achieve the end is very different indeed.

The third and final type of ESP identified by Carter (1983) is English with specific topics. Carter notes that it is only here where emphasis shifts from purpose to topics. This type of ESP is uniquely concerned with anticipated future English needs of, for example, scientists requiring English for postgraduate reading studies, attending conferences or working in foreign institutions. However, this is not a separate type of ESP. Rather it is an integral component of ESP courses or programs which focus on situational language. This situational language has been determined based on the interpretation of results from needs analysis of authentic language used in target workplace settings.

2.3.3. Characteristics of ESP Courses
The characteristics of ESP courses identified by Carter (1983) are discussed here. He states that there are three features common to ESP courses: a) authentic material, b) purpose-related orientation, and c) self-direction.

If we revisit Dudley-Evans' (1997) claim that ESP should be offered at an intermediate or advanced level, use of authentic learning materials is entirely feasible. Closer examination of ESP materials will follow; suffice it to say at this juncture that use of authentic content materials, modified or unmodified in forms, are indeed a feature of ESP, particularly in self-directed study and research tasks. For Language Preparation for Employment in the Health Sciences, a large component of the student evaluation was based on an independent study assignment in which the learners were required to investigate and present an area of interest. The students were encouraged to conduct research using a variety of different resources, including the Internet.

Purpose-related orientation refers to the simulation of communicative tasks required of the target setting. Carter (1983) cites student simulation of a conference, involving the preparation of papers, reading, note taking, and writing.

Finally, self-direction is characteristic of ESP courses in that the "… point of including self-direction … is that ESP is concerned with turning learners into users" (Carter, 1983, p. 134). In order for self-direction to occur, the learners must have a certain degree of freedom to decide when, what, and how they will study. Carter (1983) also adds that there must be a systematic attempt by teachers to teach the learners how to learn by teaching them about learning strategies. Is it necessary, though, to teach high-ability learners such as those enrolled in the health science program about learning strategies? In fact, what is essential for these learners is learning how to access information in a new culture.

2.3.4. Factors That Should Be Considered in ESP Courses

According to Sysoyev (2000), there are some factors that should be considered in ESP courses: students' analysis, that students' analysis can give two kinds of information. The first reflects learners' possession – their current level in their L2 – ESP, field knowledge in L1 and/or L2, motivation, methods of learning they have experienced, etc. The second represents what learners want to achieve –
what traditionally has been called "ESP needs". Formulation of goals and objectives of course, conceptualizing the content, selecting and developing ESP materials, course planning and evaluating the course are other factors that should be considered in an ESP course.

According to Robinson (1991), a number of features are often thought of as critical to ESP courses. First, ESP is normally goal directed. That's students study English not because they are interested in the English language (or English language culture) as such but because they need English for study or work purposes. Second, an ESP course is based on a needs analysis, which aims to specify as closely as possible what exactly it is that students have to do through the medium of English. Other characteristics are specific time period of the course, and adult students in an ESP course rather than children. So, it is assumed that they are not beginners because they have already studies EGP foe some years. And the last one is that ESP involves specialist language (especial terminology) and content.

2.4. English and Technology

2.4.1. English and Internet

"Computers have become indispensable in the contemporary world as the powerful means for communication and education. Learners' interest to learning languages has been enforced by the availability of the Internet, which provides easy access to every possible kind of information and serves as an effective tool to facilitate learning" (Kavaliauskiene, 2003, p.1).

According to Kavaliauskiene (2003), the concept of Information and Communication Technology (ICT) has been associated with the use of the Internet and implies the interactive use of the World Wide Web for education. The Internet presents a reliable and continuously update source both of general and specific interest material that are invaluable to learners. The increasing emphasis and promotion of autonomous learning of foreign languages and the widening role of online technology have lately become the major features in language teaching.

According to Lockwood's and Scott's (1999, p.8) opinion, Internet represents the most important human invention in communication since the invention of the printing press in 5th century Europe.
Never before in human history have so many people been interconnected, and never before have individuals had so much information and so many resources to communicate with others at their disposal.

The Internet offers some truly unique opportunities that can give teaching new impetus and be quite a lot of fun for the students. Most importantly, ESP students get a lot of information related to their special fields in a way that it is not boring.

Despite the abundance of resources on the Internet, those resources are not likely to be useful unless the students can locate them and know how to use them to enhance their language learning experience. Being exposed is not enough if the student does not have time or the English proficiency to analyze any of them. The degree to which the Internet is useful is language learning depends fundamentally on how well the materials found match the needs of the students and their ability level. For students with limited language ability, even websites specially designed for ESL students will not prove helpful unless the content is relevant and the instructions understandable. One important factor is the role of teachers that can effectively help and guide students to learn English through ESL websites already available on the Internet and then is the role of students to perceive and learn English through these teacher-selected websites.

As mentioned earlier, one of the important factors that should be considered in ESP courses is the students' interests. According to Liand Hart (1996), the web's multimedia capabilities and interactive functions have made it an attractive medium to conduct instruction. Among the reasons for using the web in ESL learning increased student motivation, authentic language, and global awareness have been cited (Meloni, 1998). However, there are still many problems with the application of the Internet in the classroom including the reliability of the information on the web, the cost of the equipment needed to connect to the Internet, inequality of access between the have and have-nots, and frustrating slow connections (Lyman, 1998; Sussex & White, 1996; Warschaver, 2000).

### 2.4.2. Searching the Internet for Authentic Materials

According to Kavaliauskiene (2003), web is a collection of a vast number of reference materials,
which could be assessed and selected through using common search engines or directories, for example, http://www.google.com, http://www.yahoo.com, http://www.ask.com, and so on.

Having found the relevant websites, it is necessary to evaluate information, in particular 'source accuracy (i.e. authority, objectivity, and coverage), appropriateness (for learners' needs), and appeal (easy to use, interesting to read)' (Opalka, 2002). So some teachers think that access to the Internet materials needs to be controlled in order to prevent students downloading undesirable material.

2.4.3. Guidelines for English Teaching/ Learning on the Web

A few common guidelines for teaching English on the Internet emerge from the investigation of the experiences of teachers around the world. The guidelines were designed by Warchauer (1997) to help teachers implement computer-based activities in second language classroom, and a brief summary is presented below.

Whatever reasons teachers have for teaching language via the web, the first important point is to clarify the goals for using the Internet, e.g. teach writing, revise vocabulary or grammar, prepare projects, solve WebQuests, gain email connections, etc. It is extremely vital to remember that 'little is usually gained by just adding random online activities into a classroom' (Warschauer, 1997).

The second important point is integration of online activities into the course curriculum ' rather than adding these on top of the rest of the classroom activities in a disconnected fashion' (Warschauer, 1997).

The third problem that teachers often encounter is that there are a number of complexities in introducing the web-based activities. A few to be mentioned are basic computer illiteracy of ESL students, malfunction of hardware and software, slow loading of websites and time-consuming tasks. Therefore, Warschauer recommends that teachers have to provide support, i.e. personal help to learners during activities, assigning students to work in pairs or groups, create detailed handouts. These measures should prevent students from being overwhelmed by encountered difficulties and discouraged. Summing up the guidelines, teachers have to be creative and find their own ways of
applying the web-based activities.

2.4.4. WebQuests

WebQuests are inquiry-based activities designed for the purpose of integration the Internet into the classroom. WebQuests focus on using information (not looking for it) and supporting learners' thinking at the level of analysis, synthesis and evaluation. WebQuests develop problem-solving skills and promote learning through analysis of complex concepts. This is why WebQuests can be effectively used for a content-based approach to English for Specific Purposes (ESP) instruction (Marco, 2002).

The advantages of WebQuests are numerous: fostering cooperative learning, engaging students in performing real world tasks, using authentic online materials, promoting learner motivation, developing reading skills such as scanning, skimming, paraphrasing, summarizing, organizing, analyzing as well as problem solving skills (Marco, 2002).

2.4.5. Computer-Mediated Communication

Computer-mediated communication (CMC) is a term which refers to human communication via computers. 'A distinction can be made between synchronous CMC where interaction takes place in real time, and asynchronous CMC, where participants are not necessarily online simultaneously' (Simpson, 2002). Synchronous CMC includes online chat, audio, and video conferencing, while asynchronous CMC – email, mailing lists, discussion forums. In the former, learners must be online at the same time, which may cause some technological and logistical difficulties.

2.4.6. Fostering Learner Autonomy through ICT

A majority of students are enthusiastic about using the Web for learning English. The Internet-assisted instruction fosters learner independence through such activities as 1) interpersonal exchange, 2) information collection and analysis and 3) web publishing (Krajka & Grudzinska, 2002).

The first type of activities, i.e. interpersonal exchanges engage learners in real life communication with partners via email. Emailing is an easy and effective way of communication between students all over
the world. Partners can be found through a number of websites.

Information collection and analysis involves using search engines, critical evaluation, organization and presentation of the chosen online materials, as well as collaboration with other students by sharing the information and discussing it. Information search is part of an inquiry-oriented activity (WebQuest).

Webpublishing is another activity for developing learner autonomy. It involves creating a website for a class and publishing learners' written texts, taken pictures, etc. Webpublishing gives students opportunity to make decisions- to choose their own materials for publication, share ideas with partners and get satisfaction for having performed real-life tasks.

2.4.7. Students' Perceptions of Language Learning on the Web

Data collection in a recent study revealed that students had an overall positive attitude to using the teacher-selected websites for learning English (Kung & Chuo, 2002). The investigation aimed at familiarizing students with ESL resources on the World Wide Web. The learners deemed it appropriate to learn English through teacher-recommended ESL websites. However, learners seemed reluctant to use ESL websites for independent learning unless they were assigned to do so. The main reported reason for not accessing websites was a lack of time and more convenient media like TV, newspapers, books, to learn English.

3. Pedagogical Implication

ESP has evolved since the 60s and a variety of sub-disciplines have appeared: EAP, EST, or such major discipline oriented ESP sub-areas such as Medical English or Business English. Complementarily, as disciplinary variation studies have increased a substantial number of discipline-oriented ESPs have been generated to meet specialized students' needs: ESP for Advertising Studies, ESP for Computer Science, ESP or Chemistry, ESP for Biology, ESP for Industrial Engineering, etc.

Therefore, along with the development of computer systems and most especially, with the development of Internet, each of these ESP sub-areas may - and should- be complemented by a corresponding electronic ESP related to each discipline. Thus, we would say that we have electronic
Business English (e-BE), electronic Medical English (e-ME), electronic English for Science and Technology (e- EST), and so forth. Each of these specific electronic ESPs would include within the specific ESP sub-area the knowledge necessary to obtain information from Internet, as well as the necessary skills to carry out tasks successfully in the net directly related to each student's field of study. These would include becoming familiar with certain specific programs and cybergenres depending on their field of studies. For instance, students in Tourism need to become especially proficient with airlines websites, travel agency software and similar programs, whereas students in Mathematics or Physics would better be taught certain specific programming languages. Spreadsheet programs or to search through university websites and international libraries sites.

Furthermore, we would argue that in the same way that we have General English- as opposed to ESP-similarly, we could say that there is a general English for Internet Purposes (EIP) as opposed to the various e-ESPs. This EIP focuses on the English language skills necessary to become a skillful Internet professional. In other words, EIP is the English needed and used by the new specific digital professions, such as webmasters, postmasters, online consultants, content engineers, online translators, e-business consultants, etc. Although, as Internet becomes more and more important, a basic knowledge of EIP also becomes more and more relevant for any professional in any field.

4. Conclusion
Technology, especially the emergence of the Internet, is affecting every aspect of education and changing the way we teach and learn. "It is no longer a question of whether to take advantage of these electronic technologies in foreign language instruction, but of how to harness them and guide our students in their use" (Paulsen, 2001). How to take advantage of Internet resources to facilitate language learning is an issue considered in many eloquent articles and publications (see Felix, 1999; Osuna & Meskill, 1998; Singhal, 1997; Sperling, 1997; Warschauer, 1995; Warschauer, Schetzer & Meloni, 2000). Numerous websites presents compilations of online resources for language teachers (see Kitao & Kitao, 2000; Depoe, 2001). Still other sites such as the Internet TESL Journal at http://iteslj.org and Teaching with the Web at http://polyglot.lss.wisc.edu/lss/lang/teach.htm1 contain ideas for using web resources as a language teaching tool.

According to Li and Hart (1996), the web's multimedia capabilities and interactive functions have
made it an attractive medium to conduct instruction. Among the reasons for using the web in ESL learning increased student motivation, authentic language, and global awareness have been cited (Meloni, 1998). However, there are still many problems with the application of the Internet in the classroom including the reliability of the information on the web, the cost of the equipment needed to connect to the Internet, inequality of access between the haves and have-nots, and frustrating slow connection (Lyman, 1998; Sussex & White, 1996; Warschauer, 2000).

To conclude this article, there is a quotation from Allwright (1981, p.9):

There is a limit to what teaching materials can be expected to do for us. The whole business of the management of language learning is far too complex to be satisfactorily catered for by a pre-packaged set of decisions embodied in teaching materials.

This means however perfect a textbook is, it is just a simple tool in the hands of teachers. We should not, therefore, expect to work miracle with it. What is more important than a textbook is what we, as teachers, can do with it. As Brown and Yule, 1983) put it:

It is, in principle, not possible to find materials which would interest everyone. It follows that the emphasis should be moved from attempting to provide intrinsically interesting materials, which we have just claimed is generally impossible, to doing interesting things with materials…. these materials should be chosen, not so much on the basis of their own interest, but for what they can be used to do (p.8, emphasis added).

References

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