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**USING THE INTERNET TO DEVELOP
WRITING SKILLS IN ESP**
**Utilizando a Internet para desenvolver as habilidades
de escrita em inglês instrumental**

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Abstract

The vast amount and great variety of current and readily available materials on Internet can be exploited to provide input in a content-based writing course, and to integrate reading and writing skills. This paper explores the integration of Web-based activities into a content-based ESP course. It discusses the underlying pedagogical principles on which an ESP writing course should be based, and examines how the Internet offers the opportunity to design meaningful activities related to the goals and objectives of the course. It is proposed that Internet should be used to help students take more control of their learning and to promote attitudes which lead to autonomous learning. Finally, some examples of Web-based activities are offered, which aim at raising the students' awareness of audience and context and at helping them improve research and writing skills.

Key-words: *English for Specific Purposes; writing skills; content-based syllabus; internet.*

Resumo

A vasta quantidade e a grande variedade de materiais atuais disponíveis na Internet podem ser exploradas para fornecer input em um curso de escrita baseado em conteúdo, e para integrar as habilidades de leitura e escrita. Este trabalho explora a integração de atividades baseadas na Rede a um curso de Inglês Instrumental baseado em conteúdo. Discute os princípios pedagógicos subjacentes que deveriam servir de base a um curso de escrita instrumental em inglês, e investiga como a Internet oferece a oportunidade de elaborar atividades significativas relacionadas às metas e aos objetivos do curso. O artigo propõe que a Internet deveria ser utilizada para ajudar os alunos a ter mais controle



sobre a sua aprendizagem e para promover atitudes que levem à aprendizagem autônoma. Finalmente, o artigo apresenta alguns exemplos de atividades baseadas na Rede, cujo objetivo é conscientizar os alunos em relação a público-alvo e contexto e ajudá-los a melhorar suas habilidades de pesquisa e escrita.

Palavras-chave: *Inglês Instrumental; habilidades de escrita; syllabus baseado em conteúdo; internet.*

1. Introduction

Although the Internet is quite a recent tool in language teaching, its benefits are unquestionable. Berge and Collins (1995) summarize the advantages of computer-mediated communication (CMC), presenting it as a forum which offers opportunities for on-line tutorials, project-based instruction, retrieval of information from on-line archives and databases, interaction, peer review of writing, and practice using computers. Frizler (1995), reporting the answers to her posting on NETEACH-L, lists the following benefits for students in using the Internet in writing courses: opportunities for interactivity with students from different places, great interaction with the course materials, which gives students a sense of ownership, motivation to write for authentic audiences with real purposes. One of the main advantages of the Internet is that it allows easy and instant access to a myriad of electronic resources, hence extending the classroom beyond the four walls (Dyrli and Kinnaman, 1995). Heimans (1995) states that “the use of the WWW as a resource has the potential to engender learning which is active, constructive and collaborative.” That is, it enables students to become responsible for their own learning, to integrate new ideas with prior knowledge, and to observe and exploit the contributions of other learners.

There is a growing body of research on how the Internet can be used for language teaching (see White, 1994; Frizler, 1995; Harris, 1995; Heimans, 1995; Magoto, 1995; Warschauer, 1995; Sussex and White, 1996; Fox, 1997; Warschauer and Wittaker, 1997, among many others), but so far little attention has been paid to the use of the Internet resources



to enhance the teaching of ESP. This paper will focus on the question of how the Internet can be used to develop the writing skills of ESP students and to integrate writing and reading skills. First, the paper will summarize briefly how the Internet is used in language teaching, then it will discuss the principles on which a writing course for ESP should be based, and finally it will present some activities which are intended to raise the students' awareness of the concepts of genre, audience and context, and to improve the necessary skills in the writing process.

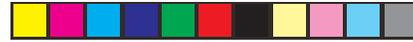
2. The Internet in teaching

As the high number of Web pages describing Web-based activities illustrate, the Internet can be used in several ways for language teaching:

(i) It can provide material for reading practice - digital texts, articles, journals – or materials that can be used as reference tools for compositions. The great advantage of this new medium is that it enables non-linear reading. As Mak (1995) puts it, “On the WWW information is presented in hypertext and multi-routes are permitted. You may stop at any point to click on a highlighted phrase and jump to other support information (...), There can be no end to the WWW document you are reading”. Additionally, the Internet also allows students to access information in a multimedia format.

(ii) It can be used as a source of information, as an input for writing, allowing students to communicate with a specific audience (not just the teacher or other students) for authentic purposes, which contributes to the students' motivation (see Shetzer 1996).

(iii) It can provide a corpus for grammar exploration (see Hegelheimer, Mills, Salzmann and Shetzer, 1996), allowing the student to become an experimenter and a researcher and to take on an active part in the process of learning. For instance, the DEIL/IEI Lingua Centre site (University of Illinois) has a resource known as Grammar Safari, which allows students to conduct a ‘scavenger hunt’ of on-line texts and become involved in a data-driven, grammar consciousness raising activity (Heimans, 1995).



(iv) The World Wide Web is also a forum for communication, where students can interact with other people, holding real-time conversations, for the purpose of language learning. Communication can be asynchronous (e.g. computer conferencing or computer bulletin boards) or synchronous, where users are on-line at the same time (e.g. Internet Relay Chat -IRC- or Multi-User Domains- MUDs). Several types of interaction are possible on the Internet¹: MUD's (Multi-User domains), MOO's (MUDs Object-Oriented) and MUSHes (Multi-User Shared Hallucinations), IRC (Internet Relay Chat), Real Audio, Maven (audio conferencing), Cu-SeeMe (video conferencing). Through MOOs students can participate in authentic conversations according to their interests and skills. Entering a foreign language MOO as a "guest" and participating as much as possible is a good way to improve language skills.

(v) The World Wide Web also offers students the opportunity for collaborative learning. Electronic mail, MUD's, MOO's and Internet Relay Chat sites enable students to participate in an 'authentic' interactive environment, hence promoting active and constructive learning (Chun, 1994; Hegelheimer, Mills, Salzmann and Shetzer, 1996). It is possible to find partner classrooms on the Internet for students to write letters to students in the other classroom. There are several sources to find partner students: IECC - Intercultural E-mail Classroom Connection (<http://www.stolaf.edu/network/iecc/>) connects classrooms and then pairs up students; Keypal Opportunities for Students (<http://www.ling.lancs.ac.uk/staff/visitors/kenji/keypal.htm>) connects individual students. Computer mediated communication has the pedagogical advantage that it motivates students to present their best writing and respond to critical commentaries by other students.

There are a lot of Web sites which show ideas language teachers have used to incorporate Web-based exercises into their language classes. Most of them are concerned with "guided browsing" (Bush, 1996):

¹ For more information on these types of interaction, visit the following site at the Yamada Language Center (<http://babel.uoregon.edu/yamada/interact.html>). The purpose of this site is to help students "find places on the Internet to interact with other people for the purpose of language learning."

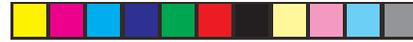
students are instructed to visit a site where they can find the activity and complete it by following the links provided on the page. Some examples of these activities can be found on the following URLs:

- “Web-based-activities for foreign languages” (<http://www.furman.edu/~pecoy/lessons.htm/>);
- “Language Learning Activities for the World Wide Web” (<http://polyglot.lss.wisc.edu/lss/lang/nflrc.html#points>) compiled by the discussion group “WWW: New Activities, New Pedagogy” at the NFLRC: Local and Global Electronic Networking In Foreign Language Learning & Research;
- “On-line WWW Language Activities” (<http://www.cltr.uq.edu.au:8000/~richardc/genguide.html>);
- “WWW Activities that Work (and Why!)” (http://deil.lang.uiuc.edu/resources/TESOL/WWW_Activities.html).

In some cases students have to visit a site, type the answers to the questions asked and then submit them to the professor. Forms are also quite useful when creating Web-based language activities. Students can, for instance, submit their essays in a form which is saved into a file accessible to all students in the class (<http://www.fln.vcu.edu/samples/knewfile.html>) or they can use a form to write their comments on a topic and see what others have written.

Interesting activities are those that combine Web research skills with writing or oral skills, that is, activities that use the information found on the Web to complete a written or oral assignment. One such activity is illustrated by Feldman with “Creating a computer - how to select and buy a computer”²: students have to use on-line resources to choose the parts they want for their computer, taking into account the budget they have. Then they have to fill a purchase planner.

² <http://www.bu.edu/mfeldman/Create/>



The Filamentality site³ describes three types of formats for activities involving information discovery: Treasure Hunts, Subject Samplers and WebQuests. Although these activities are not necessarily activities to learn languages (but to learn about a subject of interest), they are highly suitable for the purpose of language learning with a content-based approach. In a Treasure Hunt students are presented with about 10-15 Web pages where they can find information about a topic. They have to use each resource link to answer a question, in such a way that the students can get a full understanding of the topic. Finally, students have to answer a “Big Question”, where they synthesize what they have learned. In a Subject Sampler activity students are presented with a smaller number of Web sites related to a topic. In this case students are asked to respond from a personal perspective (e.g. to give their opinion, talk about their experience). For instance, in the activity “China on the Web”⁴ students are given the following instruction: “Each of the activities asks you to make a personal commitment to what you like, believe or feel about a topic”. In the last type of activity, the WebQuest, student groups have to solve a problem or perform a challenging task, often concerned with a controversial topic or with topics which offer different perspectives. For that purpose, students are linked to a variety of Web resources.

E-mail can also be used to design activities where students team up with classes in other parts of the world to share information. One such activity, where students exchange information about their degree programs, can be found on “Language Learning Activities for the World Wide Web”⁵. Day (1998) illustrates the use of usenet discussion groups to improve his students’ understanding of the notions of audience and discourse community. Students join a discussion group and monitor the discussion for a period (a week or more) so as to become familiar with the discourse conventions of the group. When they feel that they know the group and its expectations they begin to post messages to its members.

³ <http://www.kn.pacbell.com/wired/fil/>

⁴ <http://www.kn.pacbell.com/wired/China/sampler.html>

⁵ <http://polyglot.lss.wisc.edu/lss/lang/nflrc.html#points>



3. A writing course for ESP

Since ESP students need to be able to use and understand the language which occurs in the types of texts used in their disciplines, I advocate a content-based approach to the teaching of writing. Tütünis (2000) explains what this approach implies:

In a content-based approach, writing is required as a mode of demonstrating knowledge and as a mode of prompting independent thinking, researching and learning. Students learn to gather and interpret data according to methods and standards accepted in their fields, to bring an increasing body of knowledge to bear on their interpreting, and to write in specialised formats.

This approach emphasizes the integration of writing tasks with the reading of academic texts and the need to develop the student's ability to synthesize and to interpret information (Shih, 1986). Before writing students must have a knowledge of the topic, so that they can have control over their ideas and can organize and process new information. A content-based syllabus should raise awareness on the audience, the context of writing, and the concept of genre, since these are variables which constrain what the writer can write and how he/she can express his/her ideas.

A fundamental concept in the teaching of ESP with a content-based approach is that of task. Swales (1990: 76) provides the following definition of task: "One of a set of differentiated, sequenceable goal-directed activities drawing upon a range of varied cognitive and communicative procedures relatable to the acquisition of pre-genre and genre skills appropriate to a foreseen or emerging sociorhetorical situation." Skehan (1998) claims that an activity can be considered a task if meaning, rather than the teaching of forms, is the most important aspect, if the activity has a purpose and it is evaluated by taking the outcome into consideration, and if there is a relation with the real world. Phillips (1981) considers that the tasks set in a Language for Specific Purposes course must reflect the "characteristics of the learner's special purpose" and proposes four essential principles: "control of the difficulty of the text demanded of the student", the task must be seen by the student



as “meaningfully generated by his or her special purpose”, authenticity of the language, tolerance of error. The principle of authenticity is specially important, but it is a controversial one. While some researchers argue that ESP materials must be context-sensitive (Hutchinson & Waters, 1987), others claim that materials must be content-sensitive (Bhatia, 1991). Swales (1985) proposes that it is the task that should be authentic rather than the text.

All the notions discussed above are present in Grabe and Kaplan’s (1996) description of an idealized writing course. Grabe and Kaplan (1996: 261) claim that a writing course should meet, among others, the following criteria: (i) it should be a “content-driven” course which “presents topical issues and writing tasks which motivate and engage students”; (ii) it should “engage students in the writing process”, that is, students should be involved in the selection of tasks, of materials, etc.; (iii) it should incorporate activities which promote cooperative learning. The course should include activities which allow for interaction to improve writing skills; (iv) it should integrate language skills. Students should read extensively, relate the reading to the writing tasks, and discuss the readings and the writing; (v) it should focus on formal constraints which reflect the writing purpose, the conventions of genres, and the audience’s expectations; (vi) it should take into consideration the audience and the social context; (vii) it should enable writers to “practise a range of writing tasks and learn to work with a variety of genres and rhetorical issues”. The incorporation of Web-based activities to language teaching can contribute to meeting these criteria in an ESP writing course.

Internet tools can bring ESP students into contact with a plethora of up-to-date authentic texts related with their disciplines. Students can have quick access to company portfolios, technology archives, reports, standards, specialised journals, etc. Students have access to information for which there may not be time in class and, taking advantage of the multimedia presentation format of Internet resources, they can carry out their own searches to find material of their interest. Similarly, the access of teachers to the huge amount of authentic materials on the Internet helps them to develop authentic tasks, tailor-made for students’ needs, which can motivate and challenge students.



The great scope of texts that can be found on the Internet also makes it possible to perform a range of writing tasks and work with a variety of genres. In the real world students will need to write for different purposes, in a wide variety of contexts, and for different audiences. The Internet makes it possible to establish a meaningful audience and context for students' writing, different from the artificial audience of the teacher and the classroom, which allows students to become writers in a real-world context.

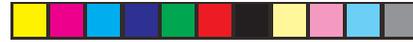
Web-based activities are also appropriate to implement a learner-centered curriculum, where students take more control of their own learning and are “more responsible for what they learn and how they learn, and how they internalize and systemize this knowledge” (Lixl-Purcell, 1990). The Internet makes it possible to develop activities where the learning derives from the student's query rather than from the teacher's direction.

Completing activities which require the use of the Internet resources also teaches students to work as a team. Day (1995) points out that “if we are to train students to write as writing is often done in the real world, we should train them to collaborate, at least in the idea-gathering and organizing stages of writing”, something that is unusual with traditional activities.

4. Web-based writing activities for ESP

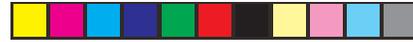
The WWW, with its multimedia links to different archives and research sites, offers an appropriate environment forum to develop writing assignment for students of all levels. The activities described below are examples of Web-based tasks that can be implemented in an ESP writing course.

The objectives of our course are to teach students to use information gathered from extensive reading to write different types of texts, which respond to different communicative needs, related to the students' disciplines. Thus, I have used the Internet to develop meaningful assignments tied to course objectives and course content.



The activities described below involve simulation, since role play and simulation tasks are quite appropriate for content-based instruction (Crookall, 1984). I agree with Coffey (1984) that “All ESP work is in essence a simulation of a real-life task.” Each of the examples below requires some decision-taking and action on the part of the students, which helps them to take responsibility for their own learning. These activities are intended to integrate reading and writing skills in a natural way. Students have to look information in on-line texts and develop reading strategies, such as skimming/scanning, inferring meaning through context, careful reading. Then they have to make use of the information they have found to complete the writing assignment. Some of the activities call for collaborative efforts. Students have to cooperate with others to complete the task: they have to exchange information, to compare and evaluate the information they have got, or to collaborate in order to deal with different aspects in the solution of a problem. Since students in ESP classes have different levels of proficiency, in some activities they are given the opportunity to perform the task at different levels.

The ESP course for which the activities have been created is a 60-hour course, so students must do a lot of work out of class. Additionally, the class does not meet in a computer laboratory (although it is possible to do so on some occasions). As the students have at their disposal Internet-connected computers and they are quite familiar with their use, class time is not used to perform the whole activity but to orient students on how to perform the activities and to give feedback and discuss the results. Before performing the activity there is a session where the goals and objectives are discussed, the knowledge necessary to perform the task is reviewed, and students are given directions to perform the task and the support that the teacher considers necessary (usually in the form of handouts that students can refer to when performing the activity). When the class is finished the students can also get the teacher’s support via e-mail. After the activity has been performed in the computer laboratory there is another class session where the results of the activity are discussed or presented to the other students in the class.



Activity 1. Choosing a University

In this activity you will visit university Web sites to help you decide at which university you would like to study.

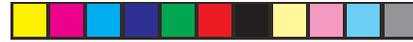
You have been one of the lucky students to be granted a scholarship to study Computer Engineering at one of the following universities: Michigan Technological University, Colorado State University, Stanford University. As you have the possibility to choose one of the universities, you decide to group with two other students to find out which university best suits you. For this purpose each selects one of these universities and looks for information on the page that they have for prospective students:

- Michigan Technological University: <http://www.mtu.edu/prospective>
- Colorado State University: <http://www.colostate.edu/prospect/>
- Stanford University: www.stanford.edu/home/admission/index.html

1. Would you like to get some kind of information you have not found on these pages? Try the sites for current students that these universities have: <http://www.mtu.edu/current/>, <http://www.ar.colostate.edu/>, <http://www.stanford.edu/home/students/index.html>. They even have students associations with whom you can contact by e-mail if you need further information. But take into account that, as in real life, you may not get a quick or satisfactory answer!

2. Write a text on the University you have selected to give the other students information about the following aspects: how to apply and deadline for applications, degree program, possibility of financial aid for international students, housing, estimated costs. Include any other information that may be of interest for you.

3. After comparing the information for each university choose one of them.



4. After reading the instructions and requirements to apply for admission, print the application form and fill it. Hand in the form to the teacher.

5. If there is no application form, or you cannot find it, write a letter of enquiry to the person responsible.

6. If you are not satisfied with these universities, you can visit the following page with a list of over 3,000 universities and make your choice:

<http://www.mit.edu:8001/people/cdemello/univ.html>

Then write a letter to the institution that has granted you the scholarship and enquire about the possibility of choosing another university, giving reasons for not being satisfied with the universities offered.



Activity 2. Looking for a job



In this activity you will make use of the on-line resources offered by universities and organizations for job searching and career development.

1. Decide the job or position you want to look for. Go to the following page from the “Graduating Engineer and Computer Careers Online”⁶. Recently hired college graduates talk about their careers in Engineering and Computing. Choose at least two of the positions and write a list with what you like and dislike about them.

2. Use one of the following addresses to find a job which suits you (education, salary, etc)

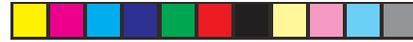
<http://www.computercareers.net/>

<http://computerwork.com>

<http://www.computer.org/computer/career/career.htm>

⁶ <http://www.graduatingengineer.com/careerprofiles/index.html>





3. To decide if you are making the right choice, you should first research the company. On the sites above you can find information about the companies offering the job, but this is usually biased information, given by the company itself. Find information about the company from other sources: the company home page, looking for news about the company with a search engine such as “google” (<http://www.google.com>). The site (<http://www.graduatingengineer.com/companies/index.html>) offers a list and a detailed description of the best companies to work for in the U.S.A. Have you found any information about the company that is not included on its home page? Does the company home page focus only on the positive aspects, leaving information out?

4. Write your resume and a cover letter to apply for the job you have chosen. To do that, look at the company home page again and select any information that will be useful to write the resume and prepare the job interview. You can find all the necessary information to write your resume and cover letter in one of the following addresses:

- Career help: <http://www.careerhelp.net/>

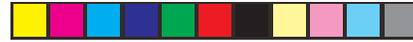
You will find a description of what a resume/ cover letter is, the different types of resumes, tips to write resumes/ cover letters and samples of resumes/ cover letters.

- Engineering writing center:

<http://www.etc.toronto.edu/Ewriting/resources.htm>

You will find information on how to handle a telephone interview, how to write a resume and cover letter and how to perform well in a job interview.

5. Work together with another student to prepare a job interview. Hand a copy of the advert for the job you are applying for, together with your resume and the cover letter, to the other student, who will play the role of the personnel manager of the firm.



Activity 3. Looking up information in magazines

In this activity you will look up specialised magazines to find specific information and write a report or develop a project. This will allow you to improve your reading, writing and research skills and to acquire vocabulary through extensive reading.

1. You work for a company involved in the manufacture or design of one of the following: a) hardware, b) software, c) storage devices, d) output devices, e) input devices, f) portable computers.

As part of your job you work in a team who has to keep other members of the company informed of the major developments in the area. For that purpose, you have to read some specialised magazines and present a fortnightly report describing the new trends or products in the area.

2. Work in groups of three and choose one of the options above - a) to f). Each of you has to choose one of the magazines below and look for news concerning the option you have chosen during two or three weeks.

- *Byte Magazine*: <http://www.byte.com/>
- *PC Magazine UK*: <http://www.zdnet.co.uk/pcmag/>
- *Computerworld*: <http://www.computerworld.com/>

If you prefer to review any other on-line magazine instead you are free to do so.

3. Evaluate the site in terms of reliability (i.e. Can we count on the information provided there?) and authority. Take into account the types of text from which you are taking the information: news and features, editorials, product reviews, etc.

4. Write a joint report where you summarize the results of your search.

5. You can also develop a verbal report to present in the weekly meeting of your department.



6. Find a text with information you would like to comment on (e.g. some point you agree or disagree) and write a letter to the editor.

The good point of this activity is that more proficient students can take on more difficult articles, whereas less proficient students can read easier articles.

Activity 4. Product information.

In this activity you will visit companies' home pages to find information about specific products/ services and order them.

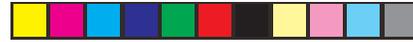
1. Work in groups of three. Choose one of the following products to find the companies from which you can get them: laser printers, modems, touchscreens, monitors, scanners.

2. Enter the following page

<http://www.thomasregister.com/>

You will be prompted to write the product you want to search for. The search will produce a number of headings, as in the example below:

Search Path: "laser printer"					
8 product headings found					
Product Headings Found	Companies	Catalogs Websites	Order On-line	CAD Drawings	
1. Laser Printer Cleaning Kits	3	3	3		
2. Printed Circuit Board Fabrication Lasers	1	1	1		
3. Printers: Laser	155	13	1	30	
4. Cartridges: Laser Printer Toner	6	2	3	5	
5. Inks: Laser Printing	12	4			
6. Parts: Laser Printer	1				
7. Repairs: Laser Printer	1				
8. Toners: Laser Printer	42	7	1	10	



2. Choose one of the headings with catalogs and Websites and where you can order on-line (e.g. “Cartridges: Laser Printer Toner”). By clicking on the heading you will get a list of the companies.

3. Select three companies of your choice. Each of you has to browse the catalog of one of the companies and find the item you have chosen. Print the information about this product and make a list of its strong and weak points to discuss it with your partners.

4. Decide which company offers the best product. Print the on-line order and fill it.

Activity 5. Filing for a patent

In this activity you will look at texts on the Internet to find information about patents.

1. You have invented one of the devices in brackets (“A CD-ROM software protection system”, “A modem interface unit with power saving sleep mode”, “an image-based touchscreen”) and would like to file for a patent, but you need some information on how to do it. You would like to know:

- a) The kind of patent you can receive for your invention.
- b) The criteria that your invention must meet to receive a patent.
- c) When a patent is considered novel.
- d) Where to search to see if your invention is novel.
- e) How to file for a patent.
- f) What is necessary to do to obtain patent protection for the same invention in several countries.
- g) What you need to do to maintain a patent.



2. Searching on the Internet you find the text “Introduction to Understanding Patents”⁷. Does it provide the information you need? Take notes on the information you need (the answers to points a) to g)).

3. The text indicates where to search to see if your invention is novel. Visit the page and find at least the description of two patents that are related to your invention (i.e. patents concerned with software protection systems, modem or touchscreens). Print them and bring them to class.

4. The text also gives a URL to find more information on how to file for a patent. Visit the site and answer the following questions:

- a) Who may apply for a patent?
- b) How can you apply for a patent?
- c) What can be patented?
- d) What does the application for a patent include?
- e) Which is the process until you get the patent?

The activities described so far required quite a high level of proficiency in English, but activities can be developed for students with a lower level. The following is an example:

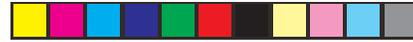
Activity 6. Inventions

In this activity you will use information on the Internet to write a text about inventions for computing.

1. Make a list of the most important inventions for computing.
2. The following site has a link to a page where you can look for the invention you wish (“Historical inventions from A to Z”):

<http://inventors.miningco.com/science/inventors/cs/>

⁷ <http://www.lib.umich.edu/ummu/pattm/whatis.htm>



3. Choose one of the inventions on your list and look for it on this page. The page will show you links to several texts about the invention selected. Choose two or three links and use the texts there to write the history of the invention you have chosen. If you consider that any of the sites chosen is not appropriate for your purposes, because it does not contain useful or reliable information, choose another one.

6. Conclusions

The purpose of the Web-based activities described above is to help ESP students become active learners, assume responsibility for their learning and take decisions concerning their learning. I also aim at helping students develop autonomous learning skills and at enhancing their computer capabilities to learn languages.

As we have seen, Web-based activities are specially suitable for an ESP writing course. The Internet allows students to access an enormous quantity of multimedia resources and authentic and interesting real world materials, hence becoming an appropriate tool for a content-based writing course. Since students are required to write for a real audience, these activities can help to raise the students' awareness on the concepts of audience and social context. Web-based activities usually require that the students should take more control of their learning, and to engage in the writing process. The use of the Internet for learning languages usually involves the integration of different language skills, and promotes collaborative learning. The Internet also makes it possible for students to come into contact with a wide variety of discipline specific texts and genres, which enables them to practise a wide range of writing tasks. Finally, the Internet can be used to help students develop evaluative and critical skills, since one of the features of this new medium is that it provides a great variety of sources of information that students need to evaluate for reliability, accuracy, authenticity and applicability.

When using Web-based activities for language learning it is important to integrate these activities within the learning curriculum, relating them to the goals and objectives of the course. The Internet should be seen as an instrument, used to promote attitudes which lead



to the development of autonomy and to improve the skills that are the goals of the course. The use of Web-based activities requires training students to develop autonomous learning and to assume a change in the teaching-learning paradigm and a shift in the roles of the teacher and the learner. Learning on-line requires the students' ability to direct their learning to some degree and to tolerate ambiguity and error. However, the role of the teacher is highly important. As the real world material available on the Internet is not graded, teachers must design activities with which students do not feel overwhelmed by the difficulty of the task, and they must provide the necessary support. Teachers should also teach students to look at information on the Internet critically, with activities which help them judge the usefulness and reliability of WWW sites as resources.

To conclude, the interactive features of the Internet and its hypertextual and multimedia capabilities are opening up interesting paths for ESP learning and teaching. Of course, much classroom-based research is required to see the effect of using this medium on the acquisition of language skills by the students.

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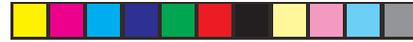
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