

# **THE ELECTRONIC LABYRINTH: INTERCONNECTION AND CONTENTS IN THE CREATION OF MULTIMEDIA APPLICATIONS IN ESP**

M<sup>a</sup> Mercedes Rico García

Ana Belén Cumbreño Espada

Universidad de Extremadura (Spain)

## **Abstract**

This paper attempts to present the potential derived from the usage of internet and multimedia applications as educational resources, either as additional teaching help or as self-access language material in the design of online activities which allow students to construct meaning autonomously and play a more active role in their learning process (Chun & Plass 2000).

In the light of these premises, we firstly analyse some of the linguistic, pedagogical and formal considerations which should be taken into account in the successful development, design and creation of linguistic sites and communicative tasks.

Likewise, this work briefly analyses two of the axes which govern the linguistic acquisition on computer support: (1) the role played by the interactivity and connexion to the wide variety of web resources and (2) the fundamental function exerted by the creation of multimedia tasks in the field of specialised languages as well as proposes some methodological models according to the pedagogical approach followed, participant expertise, language proficiency and the like

## **1. Internet-Based Instruction**

Internet and its possible applications in education has greatly revolutionised the field of second language teaching, not only for the great amount of resources available on the web, but also for the possibility of creating multimedia tasks and making use effectively of such teaching resources. Such investigations as that of Krajka (2002) confirms the advantage of expanding language instruction from the web-based resources and the potential derived from the inclusion of sound and images in the teaching of English as a foreign language -availability of authentic material, networking and multimedia capabilities, non-linear information structure and the like-. Furthermore, and according to Topol (2002) the possibility of accessing and obtaining an endless supply of authentic material would definitely increase students' motivation.

Although in the light of the arguments above there are numerous reasons in favour of integrating web-based materials and multimedia resources into the foreign language programs, there are still a great deal of challenges to reach a successful integration, from the technical lacks such as the bandwidth, compatibility, components and software to the lack of control over

the quality of the online material and the chaotic structure derived from its hyper-link structure and information presentation (Bradl 2002).

So, in spite of all the linguistic resources found on the web, the lack of structure mentioned above may prevent teachers and students from accessing and explore these materials and cause them to lose the track within this huge electronic labyrinth.

Besides, little is known about students' attitudes towards the most appropriate method to integrate web-based material as well as the methodological approach followed in the design of instructional web sites and multimedia tasks.

Likewise, when talking about Internet we have to talk about hypertext. George Landow and Paul Delany (1991) define the hypertext as a text that goes beyond the traditional limits of a traditional text: "the use of the computer to transcend the linear, bounded, and fixed qualities of the traditional written text".

The hypertext allows users to make use of their intuition to find the information, although sometimes this intuition is strongly conditioned to the topics selected by the application designer. In any case, users can look for the information, display links, download documents and programmes, being in contact with other users and discover and construct new connections.

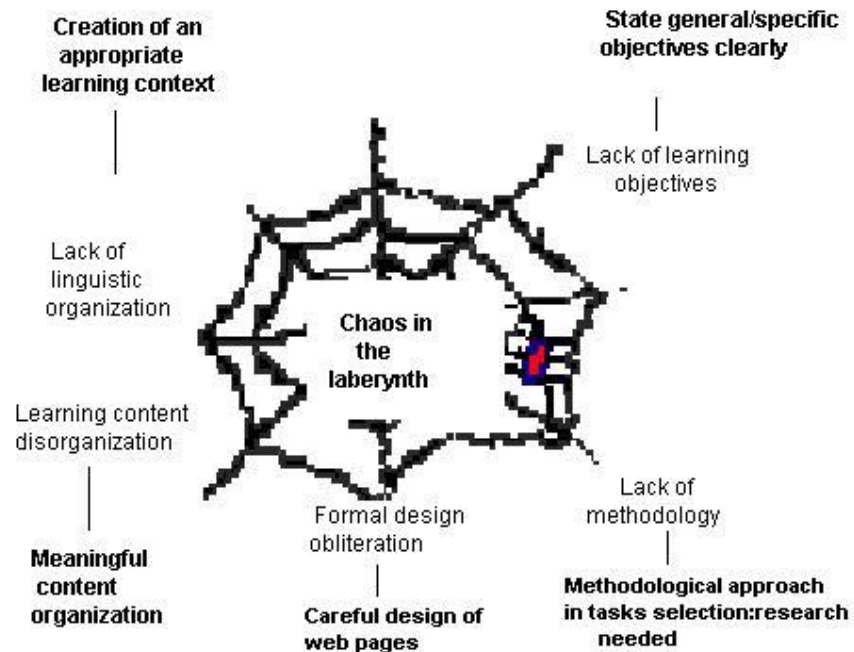
However, it would be misleading to suggest that this may seem to be the panacea which will give us access to an unlimited amount of information and learning resources, as Slaouti (2002) claims it needs a deeper analysis to prove all its potential as a learning tool.

## **2. Internet: The Electronic Labyrinth**

The beginnings of the use of Internet takes place in the 70s, from that time onwards and apart from exploring the great advantages that Internet offers, some limitations and challenges, mainly referred to the fact of the great amount of information displayed on the web, have been identified. The facilities of online publishing has caused the proliferation of a great deal of unexamined electronic material which should be examined carefully in order to determine its linguistic appropriateness. Therefore, in the same way as not everybody is allowed to publish printed versions, the same criteria should be applied when talking about online publications.

Thus, as a consequence of the rapid expansion of the Internet learning resources and the facility to publish linguistic activities online, it seems necessary to take into account some of the weak points contained in Internet published materials and to give solutions based on general design and methodological patterns as shown in picture 1.

## MULTIMEDIA LEARNING: WEAK POINTS AND SOLUTIONS



Picture 1: weak points and solutions

- A lack of linguistic context which implies that a wide range of activities are focused just on the development of either micro or macro skills for foreign language learning, instead of creating a meaningful context which covers all the learning objectives tasks and activities.
- The chaos derived from the disorganization and lack of content sequencing should be avoided in the pursuit of facility and clarity of content organization.
- Material and multimedia formats(audio/video/texts, etc.) should be selected according to specific methodological patterns and linguistic theories, learning objectives and the like.
- Learning objectives should be clearly stated
- Formal design of web pages ( format, colour, typography, images, links, etc) which is to some extent undervalued in most applications, should be carefully examined.

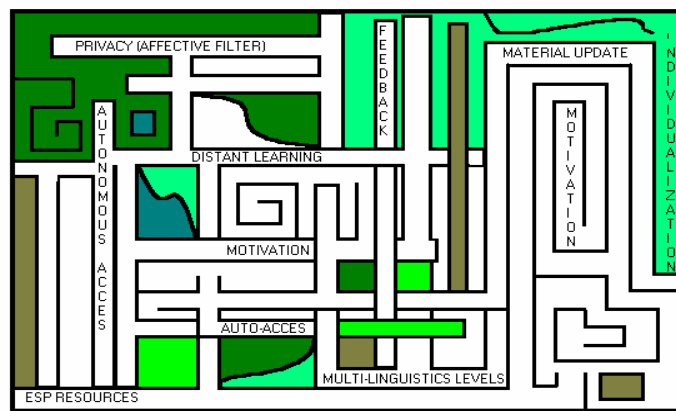
Besides all the considerations above, and before incorporating web-based materials and multimedia applications into our learning programs, a general assessment of contents and resources provided by Internet applications is needed to determine, for example, whether the activities on the web page may be downloaded while being off-lined, the availability of technological resources in class, students' expertise with the New Technologies, the proficiency level, among others.

In this context, the educator should thoughtfully consider the advantages of using multimedia and Internet resources against the benefits derived from using other learning media -the

advantages of using computers instead of using printed resources, the possibility of using the activities either as additional teaching help or as self-access language material and the like-

### 3. Internet: order in the labyrinth

As Internet presents an inexhaustible source of resources, not only as supporting material to traditional teaching methods but as a self-paced learning methodology where the students have access autonomously (Warschauer 1998), we strongly think that there are many advantages, as seen in picture 2, derived from the usage of new technologies in learning foreign languages, not only for teachers, but also for students and educational programs and institutions.



Picture 2: advantages

In the last decades, apart from extending the great amount of resources found on the web, there has been fruitful proposals leading to the design of web-based learning environments.

In this context, different authors have established guidelines to create web sites containing language learning resources and linguistic applications. Among others, Victoria Mueheleisen (1997) points out four stages in the development of web pages: “surfing the Net”, “using e-mail”, “doing research” and “making a class web site” and Tom March (1998) claims the necessity to devise learning contexts where students, inside or outside the class, could practice the linguistic components in a previously arranged linguistic web site.

According to March, in order to arrive at the prime objective of creating web sites with linguistic content, we should design a learning structure consisting of three different phases: “exploring the possibilities”, “designing for success” and “creating your web quest”. Starting by exploring the possibilities that the web offers, we should firstly focus our attention on users’ needs, wants and interests.

Afterwards, once explored the possibilities of the Internet, it is necessary to organise materials and contents and structure them so as to reach a significant learning, taking as a leading assumption the selection of authentic examples, this is what Tom March defines as: *ID Real world feedback* “ Remember that everyone loves to feel they are involved in real life” ( March 1998) on line: [www.ozline.com](http://www.ozline.com).

In the last stage, the attention should be focused on involving students in the learning process, on making them adopt an active role in the learning process and become the real agents of the linguistic construction.

In our case, the importance of creating an online learning environment which houses and organises all the linguistic contents, it is ratified by the direct work with students and their opinion about the efficiency of teacher guided/non-guided multimedia learning material (see figure 1 & 2), the development of linguistic web sites tailored to the students’ needs, as opposed to these proposals lacking from a previous organization.

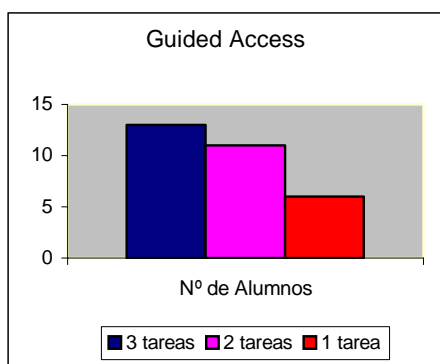


Figure 1

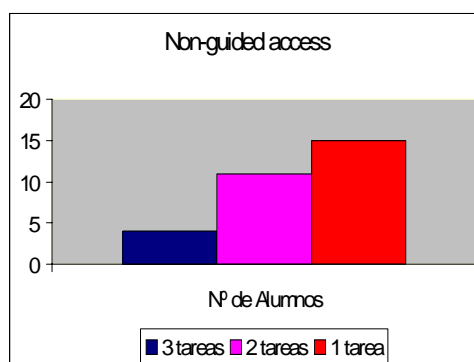


Figure 2

As seen in figures 1 & 2, the lack of a linguistic structure which presents the online resources and tasks can easily lead the users to an unproductive search of resources, and consequently, to a noteworthy decrease of linguistic gains and production. So, whereas the number of tasks done in a 50 minutes lesson decreases considerably in a teacher non-guided approach (figure 2), the activities successfully completed by the same students increases when those are organized in a learning structure previously designed by the teacher (figure 1).

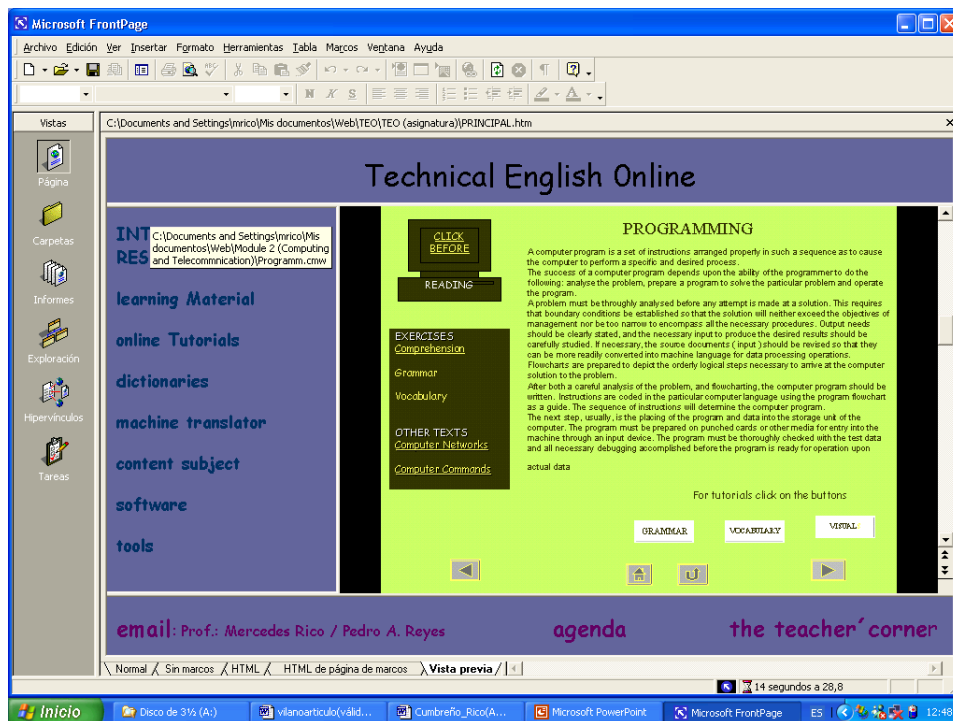
#### 4. Development in the labyrinth: creation of multimedia material

The design and creation of multimedia learning could be determined by factors such as the linguistic theory, teachers and students’ expertise with new technologies, learners linguistic competence, the technological means available, among others, circumstances which make

always necessary some kind of reflection on aspects such as the methodological approach to follow, contents, tasks and resources to include (Brandl 2002).

Therefore, depending on the involvement of teachers and students in the development of multimedia activities and in the construction of meaning and linguistic acquisition, we could distinguish three types of methodological approaches to follow based on the degree of teacher and students involvement in the design of activities and determining the content.

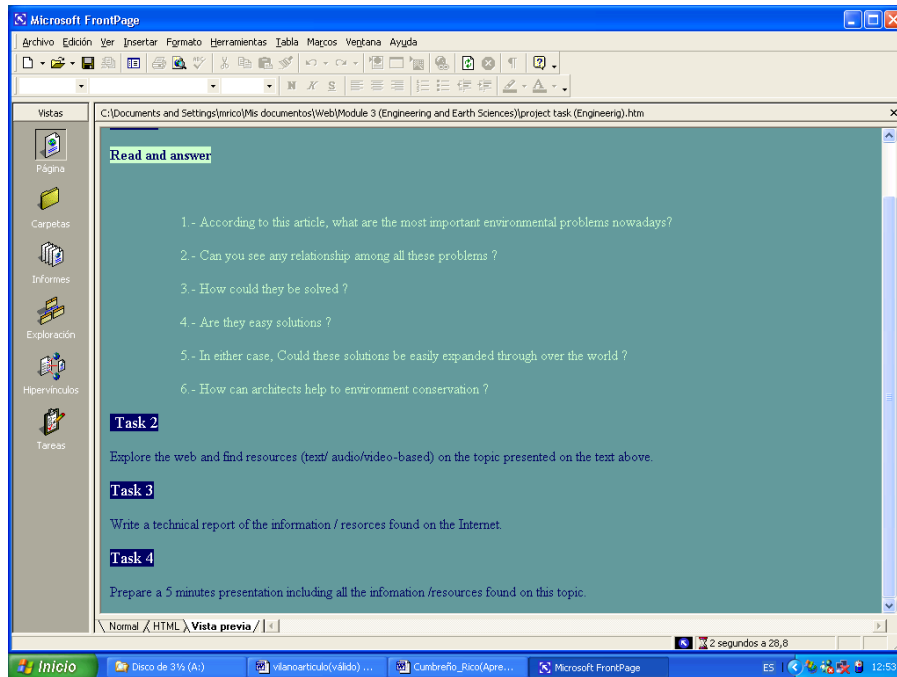
a) Teacher-guided lessons consisting of multimedia tasks designed by the teacher. The teacher selects, designs and creates the activities according to his/her methodological preferences, strategies, pedagogical view, ways of learning and the like.



Picture 3: teacher guided lessons

As shown in picture 3, the teacher is in charge of guiding the learning process, selecting the contents, skills and linguistic components that comprises the application. The student's implication in the development of the activities included in this approach is comparable to those followed with printed tasks, however, in a multimedia environment students can work in a computerised medium which provides them with all the advantages derived from the use on new technologies in L2 acquisition (combination of formats, auto-access, self-assessment, interactivity, motivation, etc).

b) Co-participation in the development of multimedia tasks, the teacher, as a resource facilitator, implements the proposal by establishing the general content, giving the necessary tools to reach the learning objectives and guiding the students to explore the previously selected items.

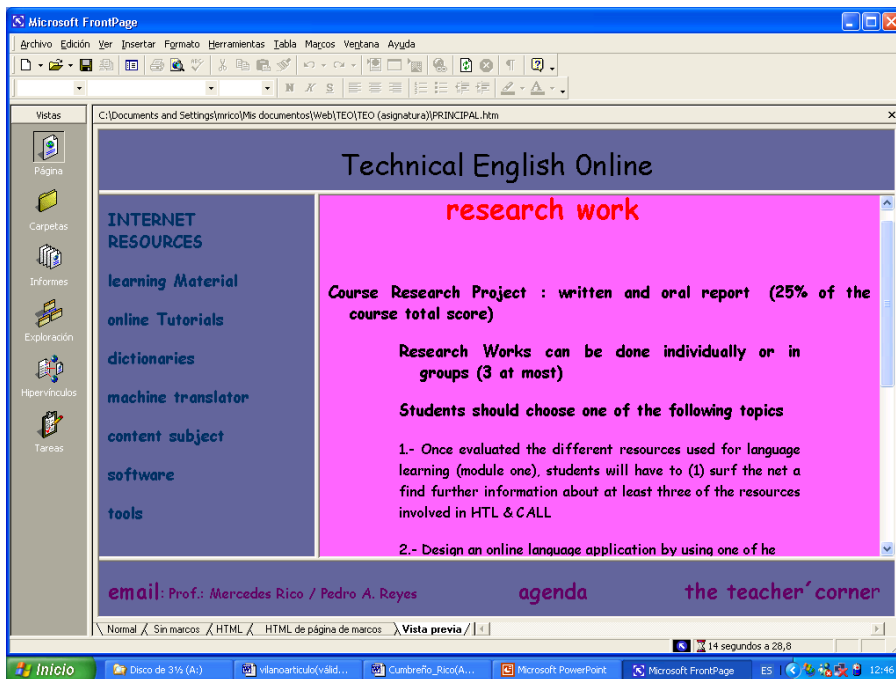


Picture 4: teachers as facilitator

As we observe in picture 4, the teacher determines the topic with which the students are supposed to work and set the main goals. Through communicative tasks, the instructor guide the learners to explore the pre-selected resources whereas the students accomplish the suggested tasks to reach the objectives.

However, as the answers become less foreseeable than in the previous approach, the instructor must be ready for a wider spectrum of answers which makes necessary to redefine the evaluation criteria (assessment type, frequency, type of test and scoring and the like).

c) The pedagogical implications derived from a learner-guided lessons involve the construction of meaning by means of the students who take responsibility for the learning outcomes by exploring themselves all the resources to reach the objectives. In this sense, they are to make decisions on the process and the final product, identify goals and find resources and while the teacher offers support and guidance as much as necessary through the learning process.



Picture 5: learner-guided lessons

As shown in picture 5, the students are in charge of exploring all the possibilities that the World Wide Web offers to build a significant learning by doing the activities proposed by the teacher which can be defined as research tasks or project work. The student's autonomy makes him feel the main responsible for the teaching and learning process. (Chun & Plass 2000).

As said before, a key feature of this online teaching/learning approach is also the evaluation criteria, considerations which should be established from the beginning and decided on how these should be applied.

## 5. Conclusions

From the perspective of language teaching, we would like to emphasize that all the material taken out from Internet should be analysed carefully by the teacher.

In this context, most of the great deal of activities found on the Internet lacks of a cohesive methodology and structure which consequently seems to be more adequate for the practise and development of isolated micro skills and linguistic components than for the acquisition of communicative competences.

It is also important to bear in mind the analysis of the web page structure, taking into account the adequacy of tasks, links and resources provided as well as the methodology used in the development of specific linguistic activities.

As the necessity to follow a methodological model when designing multimedia tasks becomes an essential requirement, the conjunction of tasks and learning objectives with the assessment types used to evaluate these reveals as a pinpointing factor (Parshall et al. eds. 2002).

## **6.- References**

- Bradl; K. (2002). "Integrating internet-based reading materials into the foreign language curriculum: from teacher-to student-centred approaches". *Language Learning & Technology*, Vol. 6, N 3.
- Cameron; K. (eds). (2001). *C.A.L.L. The Challenge of Change. Research and Practice*. Exeter: Elm Bank Publications
- Chalhoub-Deville; M. (2001). "Language Testing and Technology: Past and Future". *Language Learning & Technology* Vol.5, no. 2 May 2001, pp. 95-98
- Chun, D & Plass, J. (2000). "Networked multimedia environments for second language acquisition". En M. Washauer y R. Kern (Eds.). *Network-based language teaching: Concepts and Practice*. NY. Cambridge University Press.
- Douglas; D. (2000). *Assessing Languages for Specific Purposes*. Cambridge University Press.
- Krajka; J. ( 2002). Online lessons. Using the Internet to help the course book. *Teaching English with Technology. A Journal for Teachers of English* Vol.2, Issue 1. On line: [www.iatefl.org](http://www.iatefl.org)
- Landow, G. & Paul Delany (eds) (1991) "Hypertext, Hypermedia and Literary Studies: The State of the Art". *Hypermedia and Literary Studies*. Cambridge MA: MIT
- March; T. (1998). On line: [www.ozline.com](http://www.ozline.com)
- Mueheleisen; V. (1997). "Basics and Beyond" A presentation given at the CALL conference. Chubu University, Nagoya, Japan,
- McGroarty; M. (1998). "Constructive and constructivist challenges for applied linguistics". *Language Learning*, 48.
- Parshall, C. G. et al. (eds) (2002). *Practical Considerations in Computer Based Testing*. New York: Springer-Verlag.
- Peterson; M. (1999). "World Wide Web resources for the ESP practitioner". *English for Specific Purposes*, vol. 18. Pergamon Press
- Slaouti; D. (2002). "The World Wide Web for academic purposes: old study skills for new?". *English for specific purposes*, vol. 21. Pergamon Press
- Topol; P.(2002). "Educational Web Pages. A challenge for the Teacher. *Teaching English with Technology*". *A Journal for Teachers of English*. Vol.2, Issue 1.
- Warschauer; M. (1998). "CALL vs. Electronic Literacy: reconceiving technology in the language classroom". *Linguanet. CILT Research Forum*.