L I N G U A X
Revista de Lenguas Aplicadas
S E P A R A T A

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Blended-learning in ESP:
An insight in Moodle

BLENDED-LEARNING IN ESP:
AN INSIGHT IN MOODLE

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ABSTRACT: This paper presents a strategy for promoting new methodologies and the integration of B-learning within a particular subject in the area of English for Specific Purposes. The main aim is to analyse the gradual incorporation of B-learning in a Technical English course, and more specifically of MOODLE, from the perspective and experience of the teacher and the learners. The aim of this double- perspective analysis is to ensure an objective and critical description of the advantages and drawbacks of its implementation.

KEY WORDS: English for Specific Purposes, Technical English, Blended-learning, Moodle

1. Higher education framework

Harmonising the design of the Higher Education system in the Bologna Process is both an ambitious and long term process, though there is no doubt that it is gradually becoming a reality. To promote mobility, to establish the European Credit System (a system of easily readable and comparable degrees) and to ensure the active participation of learners in higher education are some of the ultimate aims and objectives.

In this process, obviously one of the major changes required is the role of teachers and learners. An essential element in the Bologna Process is to enhance lifelong learning as an integral part of higher education. To achieve this there is a need "to encompass flexible learning paths, opportunities and techniques" ("Realising the European Higher Education Area": 19/9/2003). This requires the revision and implementation of new or innovative platforms, structures and teaching techniques to ensure that learners and teachers reach their goal successfully. The achievement of compatibility and comparability of the systems of higher education demands, nevertheless, continual momentum and gradual application in order to become fully accomplished.

With the new educational perspective, the principles, requirements and conditions must be set out anew in order to state the intended learning outcomes and make sure that the learning content is appropriate to these outcomes. Teaching is now addressed in terms of mastery and of increased learning skills which provide the basis for a lifelong learning.

In Spain at the moment the higher academic institutions are facing and tackling the challenges of the gradual implementation to ensure the enhancing of quality. The development of an Open Higher Education Area requires the integration of flexible learning paths to ensure or at least stimulate a lifelong supported-learning perspective. To this end, institutions have to provide tools such as e-learning and other non-classical learning and teaching forms, such as blended learning.

2. Blended learning

In the progressive acquisition of a second language B-learning is becoming more and more relevant in the higher education sector as it incorporates the benefits of classroom learning and of new technologies. The number of definitions for this term are numerous and varied (Whitelock & Jeffs: 2003; Driscoll: 2002; Singh: 2003; Oliver & Trigwell: 2005 and Hoffman: 2001) and this in itself would seem to imply, on the one hand, that it is currently an important issue and, on the other, that it is a term which is open to many different interpretations and in the process of being adapted to higher education requirements.

For Oliver and Trigwell, this ample interpretation of B-learning is a risk itself because almost anything can be considered blended as long as it incorporates a combination of technology and traditional learning (2005: 18). Therefore, it is extremely important to create the principles of B-learning and define them carefully, reformulating our previous teaching experience and taking into consideration all the aspects involved in the teaching-learning process.

> It is essential, first of all, to look at the major changes which are taking place in the realm of learning to understand the benefits of B-learning. Its adaptation is closely linked to the necessary shift from the importance given to the acquisition of information and knowledge (as storage of facts and names) to the acquisition of skills. Throughout the learning process the learner must acquire knowledge, abilities and attitudes, to which, with the new requirements, should be added the development of formative action. Thanks to B-learning, communication between instructor and learner is not only physical or necessarily immediate, as it allows a more flexible learning which adapts to the learner's disposition. In this sense, it incorporates the benefits of classroom learning and e-learning as it allows the teacher and the students some freedom in terms of organisation, thus opening the possibility of pacing the learning process individually.

From our perspective as teachers, some areas require and need special attention. This is the case of oral production, a skill which is extremely important in language learning but which proves to be difficult for many Spanish students, owing to lack of practice inside the classroom, previous theoretically based learning experiences and an inability to put into practice what has been learned. In terms of organisational skills a new orientation is also required. Interaction is a key word in

B-learning and it involves all the parts of the learning process: teacher, students, materials and institutions. The student is required to play a more active role in the learning process but it has to be meaningful, that is, it is not enough to sit in the classroom and listen to the teacher. The relationship between teacher and students in general benefits from this as it not only encourages group work, but it also establishes a more direct relationship with the teacher, who gets feedback about the activities and therefore can offer further information or correction when needed.

> The use of B-learning is positive in the gradual assimilation of the change produced in the classic teacher/student role. The teacher-instructor needs to adapt and integrate elements of traditional teaching methods with virtual learning, thus incorporating two modalities in the same formative action which should make the learning process more effective and flexible.

Therefore, to implement and complement e-learning with traditional teaching, special attention should be given to the selection of methodologies, resources, technologies and activities. Material design combined with the use of new technologies becomes in many cases a new challenge for the teacher.

Motivation is always an essential element in any learning process and with B-learning a new orientation is required both with respect to the way the teacher teaches and the student learns. The teacher has to assume in many cases new responsibilities becoming a designer of materials and orientating the learning process to provide a consistent structure in the long life learning process. In terms of learning outcome, we coincide with Driscoll, who defines B-learning as "skill-driven, attitude driven and competency-driven learning" (2002: 5).

3. Why Moodle?

To provide a solid and consistent blended learning, adequate tools and platforms have to be examined to select the most appropriate. Among the possible options, one of the best considered platforms of virtual or e-learning is Moodle, defined as a course management system or a free software project designed to help educators all over the world create on-line courses. One of the most important characteristics of this platform is its many modules (lessons, quizzes and resources) and its possibilities of application in the learning context (types of tasks and exercises). Moodle also allows the incorporation of new modules, thus guaranteeing the functionality of its use and providing the possibility of adding or suppressing information when necessary.

The main approach of this e-learning platform is based on a social constructionist educational philosophy, which gives importance to the contributions of all members involved in the learning process. Moodle is based on the incorporation of both a dynamic perspective and the stimulation of creativity.

If used appropriately, it can provide the students with the necessary tools to enhance their cooperative learning and independence. As Joe Rowe explains in his article "Building Educational Web Sites with Moodle", it offers the teacher the possibility of learning from and working more directly with gifted or neglected students (29/8/2005). From our point of view, the same would apply to students that need either a closer supervision or reinforcement in any learning aspect, task or area.

As has already been mentioned, to make a profitable use of this platform the teacher's formation and interest is extremely important in order to conduct this challenge with success. Moodle provides users with a series of tools and basic support for its correct implementation. If used appropriately, it can integrate the technical and pedagogical sides of e-learning, which combined with conventional or traditional learning, will help provide a high quality implementation of the educational strategy.

From our experience, using Moodle in a university context of Technical English has proved to be an enriching experience for both teachers and learners, and if any reluctance is evident it may be easily overcome.

4. Adaptation of materials to the B-learning environment

4.1. *A brief revision of the departure point*

Initially, one of the main characteristics of the "Technical English"[1] syllabus is that it was originally organised in two parts: the first was centred around a number of linguistic features frequently found in technical texts that make reading comprehension difficult for Spanish students: the modals, nominal groups, discourse markers and sentence links, and the "_ing" form. Some aspects of English grammar, which can be considered typical of technical texts (among others) such as quantifiers, comparative and superlative forms, the imperative or the passive structure were also reviewed before working with actual texts.

The second part of the course dealt with the four specialities taught in the EUIT de Telecomunicación (Universidad Politécnica de Madrid): Electronic Systems, Telecommunications Systems, Sound and Image and Telematics. They were exploited following the classical works on reading skills by Nuttal (1982) and Grellet (1985) and the activities dealt with the main problems of reading comprehension (Pugh and Ulijn, 1984). In addition, some oral texts were used to provide listening tasks in order to promote variety in the classroom, create a more comprehensive approach to language learning and integrate listening and reading as in a real academic context.

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[1] The subject is taught at the Escuela Universitaria de Ingeniería Técnica de Telelcomunicación (UPM) first year students

4.2. *A The new approach to "Technical English" and Moodle*

It was considered important to discourage students from learning or revising grammar or vocabulary isolated as was originally taught. As grammatical rules and vocabulary are considered only relevant to their particular communicative needs, one of the first and most important decisions that the teachers made concerning the experience was that the learning of grammar and vocabulary would be based on exploitation of language in the texts. The second and no less important decision concerned the actual particular needs of each and every student. Students working in a virtual learning environment such as Moodle can approach the learning task departing from their individual needs and following a more personal learning style.

4.3. *A Materials for B-learning*

The first logical step to take was to decide which activities, reading texts or texts for listening practice would be more productive for learners as self-access resources, that was to say, which of them were to be adapted to the platform. Particular needs and variation among students in grammar knowledge level and listening skills were in this particular case the principles that guided the adaptation that had clear implications in classroom content and methodology.

When working with grammar in the classroom the teacher can "feel" the proficiency level of the students is too varied. At the beginning, when reviewing different grammatical aspects that have already been studied in secondary education centres: some students finish almost immediately while others struggle to answer and the same happens with the listening activities. Thus, the most obvious contribution of Moodle to the subject "Technical English" seems to lie in the opportunities it provides for students to use the language resources to learn, improve, revise or practice at their own pace.

5. The adapted materials

Although the materials adapted to the virtual learning environment (VLE) do not differ greatly from the original ones (Argüelles Álvarez, 2005 y 2006), some changes are always necessary to adapt them to the requirements of the platform[2].

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[2] We would like to thank Paloma Moreno for her interest and collaboration in the process of adaptation of the activities included in the book "Technical English" for Moodle and Mirian Martínez, a student in the EUIT de Telecomunicación (UPM) who has participated in this project and will soon present her Final Research Project (September, 2007) where a more in depth description of the technical aspects of the adaptation is described.

With respect to the technical requirements one of the most serious limitations of the platform is the audio and video if it is to be reproduced adequately by students working with different computers with more or less limited capacity.

Talking about activities, the different possibilities offered by the platform to exploit texts must be explored and revised in order to be able to choose *those most convenient* for the materials to be adapted.

Moodle provides a good opportunity to reduce the teachers working load when assessing activities as it offers a number of resources and tools for self assessment with feedback: Yes/No questions, multiple choice activities, gap fill, arranging correct order or connecting options, etc. But Moodle also helps teachers create open tasks to be completed in groups or individually in the platform or to be delivered in the classroom.

5.1. *Six modules for "Technical English"*

The starting point of the process was the adaptation of the listening and grammar activities of the course. It was also necessary to adapt other modules of the traditional course of "Technical English" in order to adequately integrate the use of the platform with the daily activities of the groups in the classroom. The course in Moodle at the point it has been developed for the moment is presented below.

➢ Introduction Unit.- There is always a Unit 0, the first in the course, where the core elements of the subject can be found.
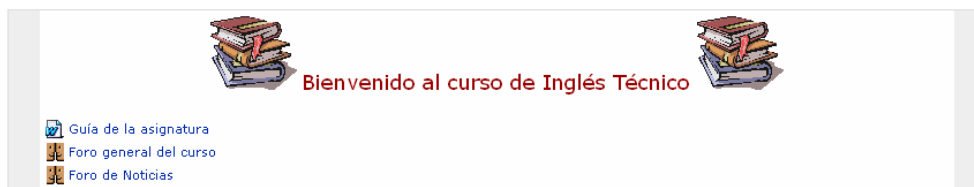
Figure 1. Unit 0

In this box the guide of the subject is found attached as a Word document as well as a general forum for the course where students can consult the teacher or other students about possible problems related to the platform they can have when interacting with it. The key to student participation in the forum is the integration with the course aims, but this is only the first step. There are many different uses of the forums which are exploited in the rest of the units: interviews, debates, reading groups, etc.

Figure 2. General Forum of the course

The following four Units correspond to the four modules originally found in the traditional subject "Technical English".
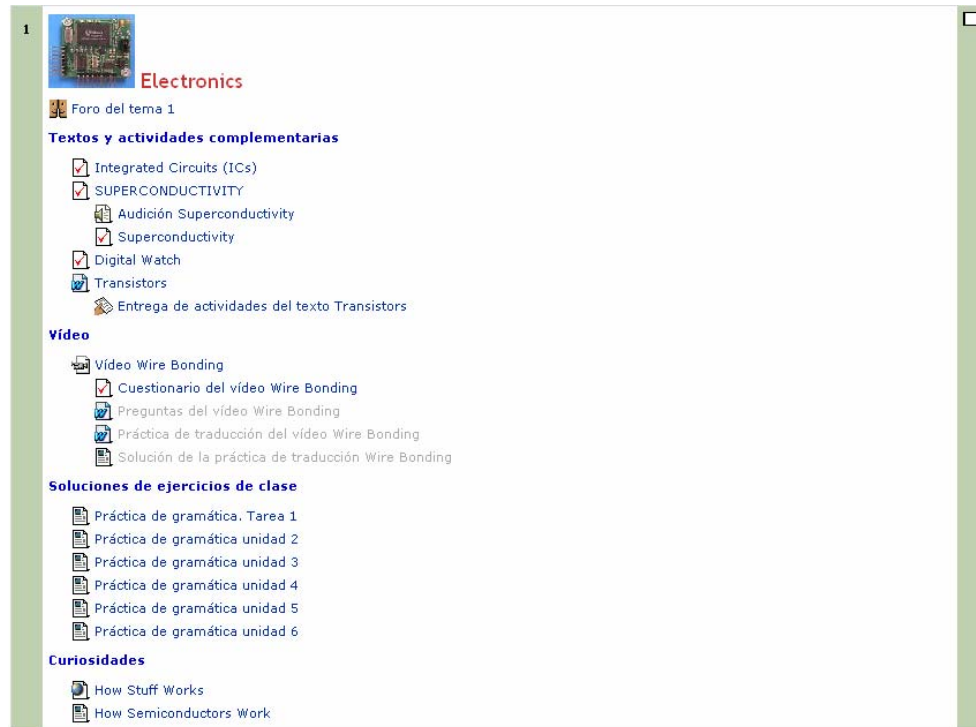
➢ Unit One "Electronics".- The unit starts with a forum for the lesson. In this case, the forum was originally conceived for reading groups. This strategy encourages students to do the reading they have been assigned because the group is collectively responsible for reading before the class. Then a number of texts to read and a range of varied activities for the texts are presented. Some of the texts and activities proposed in the original book were adapted to the platform and also the video "Wire Bonding" was adapted from a Final Project Work[3]. The answer key is for students to self correct grammar activities done in the classroom or as homework. To finish, the students are given two links to reference web pages:

http://electronics.howstuffworks.com/
and
http://computer.howstuffworks.com/diode.htm.

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[3] Noelia Vera Díaz, 2005.

Figure 3. Unit 1 "Electronics"

➢ Unit Two "Global Communications".- In this Unit the first two texts and activities are adapted from the book. The other two texts and activities are part of the new material included in the subject during the process of adaptation.

Figure 4. Unit 2 "Global Communications"

➢ Unit Three "Sound and Image".- This is probably the least exploited Unit. Both texts "Radio" and "What are 3-D graphics" are new.
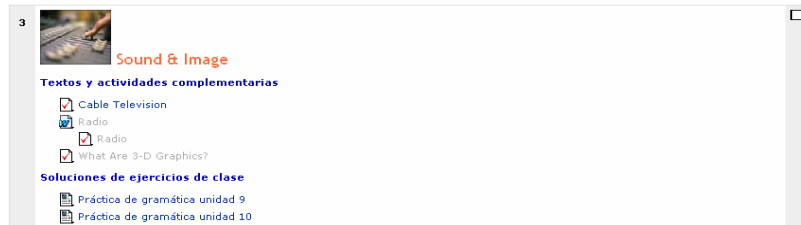
Figure 5. Unit 3 "Sound and Image"

➢ Unit Four "Information Technologies".- It also consists of different texts and activities adapted or not from the original unit.
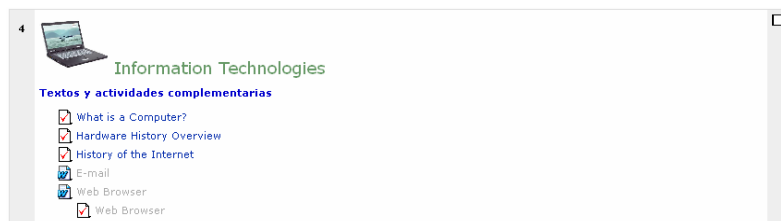

Figure 6. Unit 4 "Information Technologies"

➢ Module "Listening".- This section is devoted to all the listening tracks and listening activities of the original course. *Each listening consists of a questionnaire to complete the activities and its corresponding audio file for the students to listen the number of times needed.*
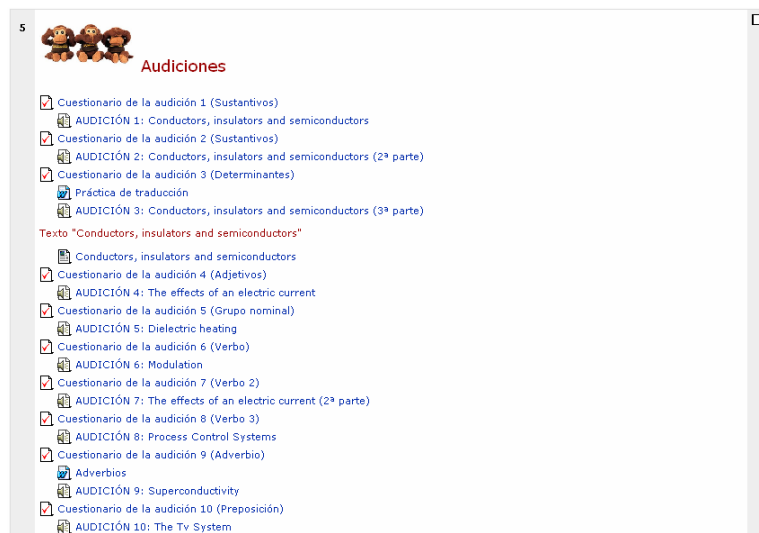

Figure 7. Module "Listening"

➢ Module "Grammar and vocabulary practice".- The second main target of the adaptation was for the students to work with grammar *depending only on their own personal style, knowledge, pace or even time. The Unit also includes a Glossary.*

Figure 7. Module "Grammar and vocabulary practice"

6. Conclusion

Although this is just the beginning of our experience with B-learning, the application of the Moodle platform in this particular subject can be considered successful. The application of new technologies in the learning process is a reality.

From our experience the integration of face-to-face ESP teacher-led classes and on-line monitoring proved productive in Technical English. Students found that they were actively engaged in the learning process, thus being allowed to self-evaluate their knowledge at times without any pressure from classmates, and therefore without feeling intimidated. The use of B-learning is also considered a useful tool to measure students' work and progress in some aspects, though from both the teachers' and students' point of view it needs to be complemented with other evaluation and assessment systems.

The experience is time consuming and at times even stressful but the gradual incorporation of Moodle gives us the opportunity of getting feedback from students, observing it with perspective and altering those parts that need improvement. There is no doubt B-learning is a challenge but so far –and this adventure has only just begun– it can already be considered a success for all the components of the learning process: students, teachers and institutions.

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