

VIAL

Vigo International Journal
of Applied Linguistics



UNIVERSIDADE
DE VIGO

Editorial Advisory Board

Allison Beeby (Universitat Autònoma de Barcelona)
Jasone Cenoz (Universidad del País Vasco)
M^a del Pilar García-Mayo (Universidad del País Vasco)
Scott Jarvis (Ohio University, Athens, USA)
Carmen Muñoz (Universidad de Barcelona)
Terence Odlin (Ohio State University, USA)
Ignacio Palacios (Universidad de Santiago de Compostela)
Sagrario Salaberri (Universidad de Almería)
Roberto Valdeón (Universidad de Oviedo)
Joanna Weatherby (Universidad de Salamanca)
Zhaohong Han (University of Columbia, USA)

Scientific Advisory Board

Stuart Campbell (University of Western Sydney, Australia)
Michael Hoey (University of Liverpool, UK)
Enric Llurda (Universitat de Lleida)
Rosa M^a Manchón (Universidad de Murcia)
Rafael Monroy (Universidad de Murcia)
Aneta Pavlenko (University of Temple, USA)
Martha Pennington (University of Durham, UK)
Carmen Pérez Vidal (Universitat Pompeu Fabra, Barcelona)
Felix Rodríguez (Universidad de Alicante)
Larry Selinker (New York University, USA)
Barbara Seidlhofer (Universität Wien, Austria)
Michael Sharwood-Smith (University of Edinburgh, UK)
John Swales (University of Michigan, USA)
Elaine Tarone (University of Minnesota, USA)
Krista Varantola (University of Tampere, Finland)

Editors

M^a Rosa Alonso Alonso (Universidade de Vigo)
Marta Dahlgren (Universidade de Vigo)

Este volume foi publicado cunha axuda da Secretaría Xeral de Investigación e Desenvolvemento da Xunta de Galicia

© Servicio de Publicacións da Universidade de Vigo, 2005

Printed in Spain - Impreso en España

I.S.S.N.: 1697-0381 - Depósito Legal: VG-935-2003

Imprime y maqueta: Tórculo Artes Gráficas, S.A.

Deseño de portada: Elena Gómez.

Reservados todos los derechos. No se permite la explotación económica ni la transformación de esta obra. Queda permitida la impresión en su totalidad. Ninguna parte de este libro puede reproducirse o transmitirse por ningún procedimiento electrónico o mecánico, incluyendo fotocopia, grabación magnética o cualquier almacenamiento de información y sistema de recuperación, sin el permiso escrito del Servicio de Publicacións da Universidade de Vigo.

VIAL

Vigo International Journal
of Applied Linguistics

Number II - 2005

Editors

*Rosa Alonso
Marta Dahlgren*

Active online tests: an implementation of a learning evaluation methodology in the framework of the European higher education system

Fernando L. Vilariño Freire

Electrical Engineering School
Universitat Autònoma de Barcelona, Bellaterra, 08193 SPAIN
fernando@cvc.uab.es

Abstract

The new framework of the European Higher Education System implies a drastic modification in crucial aspects of the learning process, including evaluation methodologies. Now, not only knowledge but general competences are to be evaluated. This represents a real challenge for the teacher, as the evaluation of these abilities shows serious difficulties if classical assessment methods are used. In this work, we present a new evaluating methodology, specifically designed and oriented to groups, based on Active Online Tests (AOT). AOTs consist of web-based quizzes that involve the student in the learning process in an active way while providing the teacher with a helpful tool for formative assessment and control. This approach lets the teacher obtain comparative inputs about competences developed by students and the work groups they belong to, serving as a useful support for the teaching task development.

Keywords: EHES, ECTS, Evaluation Methodologies, E-Learning, Active Online Tests.

Resumen

El nuevo marco del Sistema Europeo de Educación Superior implica una modificación drástica en aspectos cruciales del proceso de aprendizaje, incluyendo las metodologías de evaluación. Ahora, además del conocimiento se han de evaluar competencias generales. Esto significa un reto real para el profesor, dado que la evaluación de estas habilidades presenta serias dificultades cuando se usan los métodos clásicos. En este trabajo presentamos una nueva metodología de evaluación basada en Active Online Tests (AOT), los cuales proporciona una herramienta útil al profesor de cara a la auto-evaluación de los alumnos y el control del proceso formativo. Los AOTs consisten en tests basados en web, que

involucran al estudiante en el proceso de aprendizaje de una manera activa.

Palabras clave: EEES, ECTS, Metodologías de evaluación, E-Learning, Active Online Test.

1. Introduction

Europe's future economy and society are being formed in the classrooms of today. The Information Society will affect most aspects of our lives, so new policies are being developed in the regulation of entire sectors (IS, 2005). In this line of action, a convergence process into a common European Higher Education System (EHES) was triggered with the signature of the declaration of Bologna in June 1999 (Bol, 1999). This new framework is underpinned by the fact that new technologies and new ways of knowledge acquisition determine a life-long learning and make old teaching methodologies obsolete. In the new model, academic plans are focused on the student and based on the development of *competences*, rather than on *knowledge* transmission (EUA, 2003). The mobility of students, graduates and teachers, and the orientation of the learning process in order to guarantee the *employability* appear as fundamental elements for external projection.

The European Credit Transfer System (ECTS) establishes a model based on the volume of work that students are asked for, so as to complete one year of their studies. Nowadays, the section "Topics" has got a main role in the syllabus of the different subjects. With the new model, this role is to be shared with sections such as "Objectives", "Methodology" and "Evaluation Procedure". Our efforts have been focused on the latter point, in order to set up a methodology that helps to overcome the difficulties that appear in the evaluation stage of the new framework.

In this work, we present Active Online Tests (AOTs) as a helpful tool for the evaluation process within a specifically designed methodology, introducing the main highlights of the full protocol. Our proposed evaluation methodology is based on three main pillars: the implementation of collaborative policies in work groups, the use of AOTs for assessment, and the presence of e-learning strategies. Firstly, collaborative policies are one of the main emerging resources in the EHES. The distribution of all the students into groups appears as a useful way of inducing the development of the target social and technical abilities. Hence, the evaluation methodologies should be group-specific, or at least group-focused, if the assessment of the capabilities developed within the group is desired. Secondly, AOTs are proposed as the main evaluation tool.

They consist of a set of online quizzes that are created by the teacher and answered by the students, following a protocol which makes it feasible that competences related to personal development and collective skills should be achieved in the framework of a working team. Finally, the use of e-learning strategies in the active content involve the student in the whole learning process in an active way.

This paper is structured as follows: In Section 2, we focus on the review of the literature in the field of evaluation strategies in higher education, paying attention to the use of tests, web-based applications and active content. In Section 3, we introduce the need of evaluation methodologies in the framework of the ECTS and present the general procedure, an overview of the different types of AOTs, and the protocols defined for both teachers and students. Finally, a full description of the functionality of one real application developed in our academic environment is provided, which, we hope, will encourage its use in the field of second language acquisition and can be used as a model for the design of similar tests in language teaching methodologies; the analysis of the different elements of evaluation within the whole process is also shown. We finish this work with the exposition of the main conclusions of our research in section Section 4.

2. Review of the literature

In our group-based methodology, we make use of both tests and active content in order to build up the Active Online Test strategy. Tests have been generally considered as a method of gathering information for the evaluation and improvement of instruction, as Messick (1999) acknowledges. We propose that, under certain methodological requirements, course evaluations based on tests can also provide a method for collecting student self-assessment data related to learning outcomes, a valuable source of information for instructional improvement, and a powerful tool for a global analysis of the evolution of student skills in the whole learning process. In fact, as Edwards (2002) states, understanding variation in students' experience of learning a specific generic skill represents the first step in designing assessment instruments for bringing about desirable learning outcomes. A study by Whimbey (1985) also revealed that there was a high correlation between aptitude and achievement test scores and the scores on special reasoning tests. In this sense, the use of standardized tests provides a helpful input, in both a quantitative and a qualitative way, by means of comparative graph plots, for example, which can be used as one among multiple indicators of student learning, as Sanders (1995) found out. The improvement of the assess-

ment model and the development of standardized methods and strategies is not a straightforward task, as some authors have pointed out. For instance, Klenowski (1996) examined several developments in assessment in order to study how teachers can adopt a stronger role in the formative assessment process so as to improve teaching and related outcomes for students; an interesting study about the improvement of the assessment of practice teaching has been developed by Brooker (1998); Havnes (2002), in its turn, discussed the relationship between assessment and student learning by focusing on two educational settings based on two empirical studies; Paxton (2000) analyzed a linguistic perspective focused on multiple choice questioning.

In the case of AOTs, the web-based support of the tests yields several specific consequences. On the one hand, the use of computers in students assessment involve specific impacts that have deserved attention in several works (McKenna (2001), Fielding (2003)). Nowadays, their use is widely spread in primary and secondary school, and computers have become an indispensable tool in higher education recently, minimizing possible related impacts. On the other hand, the specific framework of web-based technologies aims at developing specific abilities. In 1997 the Dearing Report put forward a vision for the future in which a world market in learning materials based on educational technology would be deployed in a global way, and concluded that higher education institutions should be ready to adapt their methodologies in order to take profit of this scenario. Maier and Warren (2000) also provide an explanation of the potential uses and purposes of web-based teaching material. In this sense, the ability to use web-technologies is now an expected outcome of secondary and tertiary education, as well, and increasingly a prerequisite for employment. Innovative use of these tools also seems to have an important effect on the learning experience, and for distance learners in particular (Petre (1998), Sherry (2002), Harvey (1999)).

The mandatory presence of active content in a web-based environment is one of the most specific and singular characteristics of AOTs. As Grabinger and Dunlap (2000) indicate, rich environments for active learning (REAL) provide learning activities that, instead of transferring knowledge to students, engage students in a continuous collaborative process of building and reshaping understanding, as a natural consequence of their experiences and authentic interactions with the world. Recently, Bodomo et al. (2003) presented an interesting experience in the context of Language and Literacy teaching, concluding that interactivity is an essential aspect of student-centered course design endeavors, whether in traditional face-to-face classrooms or by distance learning. According to these authors, society appears to need Universities and other learning institu-

tions to produce creative thinkers and problem solvers; graduates who can be useful in a knowledge-based economy. In order to overcome the challenges that this framework presents, the new teaching strategies that are to be crystallized in the next years will have to tend to a more flexible, dynamic and active learning scenario.

3. Methodology

3.1. *The need of evaluation methodology*

The evaluation model that has been present in the University so far has been based on the assessment of the final knowledge achieved by the students by means of a grade or mark obtained after the completion of one or more written or oral tasks. This model appears to be no longer valid in the new situation, since it aimed at testing knowledge but no general competences were evaluated. In order to achieve the new objectives, pointed out in the EHES, all the activities that the students develop so as to acquire specific competences or abilities, should be taken into account. In fact, examinations and other sorts of assessment methods do not need to disappear, but the person responsible for each course unit should be in charge of establishing the most appropriate teaching methodology, not only for the students but also for the topics in question and the teacher. This implies a higher flexibility in the whole learning process and, consequently, in evaluation methodologies (Eval, 2005).

But the new framework presents new exigencies, as well. The students should be familiar with the skills that are to be achieved through the learning process; from this scope, the self-evaluation methods are useful for formative assessment. Moreover, as far as the new model tends to incorporate team work as the ideal framework where the students can develop their competences, this formative assessment has a direct impact not only on the validation and communication of the new knowledge achieved, but also on the development of the social abilities necessary to communicate it to the rest of the group. In a complementary way, evaluation methods let the teacher monitor the evolution of each student by him/herself as well as the relative evolution of each student into the group, and the evolution of the group as a whole. Each of these *evaluation lines* has a *feedback impact line* that motivates changes in the team work by means of student-to-student, teacher-to-student or teacher-to-group interaction (Figure 1 shows a graphical scheme).

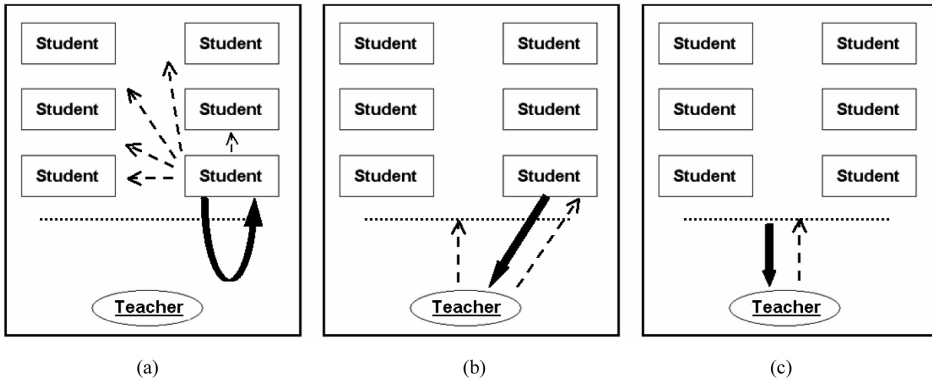


Figure 1. Evaluation procedures are shown as bold arrows and feedback impact lines as dashed arrows. After the self-evaluation process, the student should be able to communicate the achieved knowledge to the group, developing the corresponding abilities (a). For the individual evaluation process, the teacher will use the conclusions obtained to re-orientate the individual or team work (b). For the team evaluation process, all individual knowledge should have been shared among the team members, and the global work can be re-orientated if necessary (c)

3.2. Procedure

In order to implement the proposed methodology, all the students are divided into work teams. One main objective, according to the subject topics, is proposed to each work team and should be achieved at the end of the course. Specific roles and tasks are assigned to each member of the team. On each session, the teacher should follow the comments and take notes of the main difficulties and questions that arise in the group debates. After each session, the teacher writes down just two questions per group, whose resolution necessarily implies the participation of as many members of the group as possible. These questions depend on the specific problem of each team. All of them should be later studied by the teacher and be re-formulated as more general questions, i.e., independent of each specific problem, but sharing points which are common to all the groups, paying attention to the topics and abilities that their resolution would involve. All these questions, together with some previously designed gold-standard questions, constitute a corpus where the different types of AOTs will be built up.

As mentioned above, AOTs are web-based quizzes. They are *active* in the sense that they are not only tests with questions and answers (*static* behavior). AOTs must add explanations to each right or wrong answer, showing why the chosen answer cannot be accepted or emphasizing the reason why it is correct.

Moreover, each question must have a link to the topics of the course documentation, references in the course bibliography, as well as other internet links where assessed helpful information can be found. If necessary, one test can refer to another test of the same scope. In this sense AOTs are not only playing an evaluative role, but involving the student into the very learning process. A specific feature of AOTs is that it is *mandatory* that all the questions present in the tests share all and every one of the characteristics mentioned above: when students face an AOT, they know exactly what they are going to find, and that the AOT is going to provide them with helpful information and tips to solve the proposed questions. On the other hand, AOTs are active since active links are used. Agreeing with a classical e-learning strategy, all the content –or at least as much as possible- must be web-available by clicking on a specific link.

3.3. Types of Active Online Tests

From the point of view of their functionality, two different types of AOTs can be defined:

Self-evaluative AOT: The student has access to all the answers at the time of the completion of the test. It is conceived as a tool for the learning process. It can be repeated as many times as the students want, and the input received is to be shared within the team. The teacher does not receive any feedback. This corresponds to the scheme in Figure 1(a).

Control AOT: The student does the AOT only once, and the results are recorded in the teacher's database. It is used as a test of the students' and the groups' evolution. The teacher can choose whether he/she shows the active part for all the questions (answers, explanations, references and links) or for none of them. If the active part is not shown, the same questions should be presented with the active content in a posteriori test. The teacher can use this evaluative information so as to mitigate individual lacks within the group (Figure 1(b)). Finally, all the results recorded in the teacher's database for each group are used to assess their evolution and, if necessary, re-orientate their lines of work (Figure 1(c)).

3.4. Protocols

In order to implement this methodology, two parallel protocols must be defined: The protocol of redaction, publication and notification of tests results by the teacher, and the protocol of access to the tests by the students.

A) Teachers

This protocol is based on the assumption that each teacher has been provided by the system administrator with one login name and password which lets the teacher have access to his/her personal profile, in the framework of a web-based application where the AOTs are to be edited. Within this personal profile, all the subjects the teacher is responsible of, are listed. Each subject has a list of topics previously defined in the academic plan. In order to build up an AOT it must be associated to one specific topic of a certain subject -Figure 2 shows a graphical illustration of this-. When the teacher begins with the design of the AOT, a list of properties must be filled. These properties include: Name of the test, group of students allowed to access the test, date of activation and deadline for completion, among some aesthetic parameters such as colour or shape. One of the main properties to fix is the type of test (self-evaluative or control). Finally, each of the questions is redacted, i.e., query, options, response text for a right answer, response text for a wrong question, and all the active content: link to the topics of the course documentation, references in the course bibliography, and internet links. The teacher can decide to hide the active content only in the case of an examination test, but the students should have the possibility of accessing the whole content once the assessment procedure is concluded. The teacher can decide whether the key to the test should be hidden only in the case of a control test. Once the AOT is closed, a URL web address is generated, and the system sends an e-mail to each of the students involved in the test. The student will receive the web address that will connect the student to the AOT and, in the case of a control test, a login and a password that will identify only that single student in the system. The teacher can have access to statistical data related to individual students, groups and the whole class, having the possibility of plotting several statistical graphs.

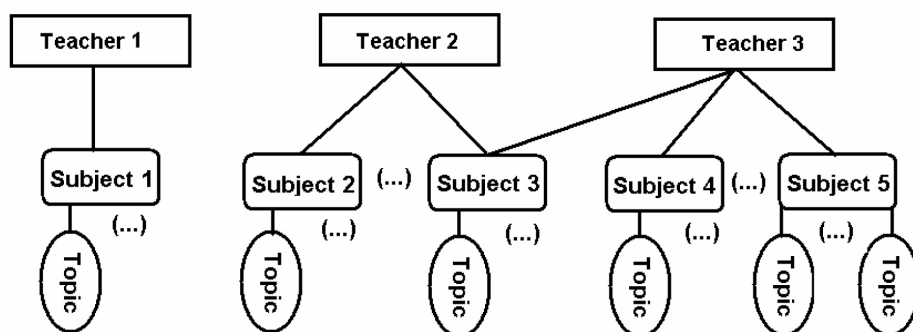


Figure 2. Hierarchical distribution of the academic elements in the AOT methodology: Each teacher can have several subjects, and different subjects have different topics; each question in AOTs is associated with a topic.

B) Students

The students receive the e-mail with the link to the web address and the date of activation and deadline of the AOT. In the case of a control test, a login and a password are included as well. If the AOT is a self-evaluative test, no login is needed, because no record is kept in the database, the student can answer the different questions freely and try multiple times, the key and the active content of each question are available. In the case of a control test, a record is kept in the database, and the solutions and active content can be shown or hidden.

3.5. Web-based application

In order to test this evaluation methodology, our group has developed a web-based application with its respective protocols for teachers and students. Each teacher is assigned a password which gives him/her access to all the subjects the teacher is responsible for. For each subject and topic, AOTs can be easily generated and edited. New questions can be added and tests with questions randomly chosen from the database can be automatically created. The teacher can schedule an AOT in advance, and restricted groups of users can be defined as well. Multiple choice, ratio, and other types of test models were implemented. With the purpose of offering the visual organization of an AOT, Figure 3 shows snapshots of the layout of a typical test (a) with the key to the questions page (b), where the right answers are highlighted. In its turn, Figure 4 shows a sample text with crossed references. All the active content related to the right answer of each question is shown on a single page, as represented in Figure 5.

Conceptos generales sobre Oracle
Asignatura: Gestores Bases de Datos - Tema: Oracle,

Anterior | Pagina 1 de 1 | Siguiente | Ver Solucion Test

1 La versión 'Enterprise' del gestor Oracle te permite monitorizar tu entorno Oracle9iAS de las siguientes maneras:

- ☒ Operaciones de Gestión
- ☒ Configuración
- ☒ 'Single Sign-On'
- ☒ 'Discovery'

Corregir | Reset | Mostrar

2 ¿Que característica del producto te permite guardar una representación de los datos de una instancia Oracle9iAS?

- ☐ Oracle9iAS Farm
- ☐ Oracle9iAS Cluster
- ☐ Dynamic Monitoring Service (DMS)
- ☐ Performance Manager

3 ¿Que componente del producto te permite acceder a una aplicación sin tener que reentrar el usuario y la contraseña cada vez que se accede?

- ☐ Oracle Internet Directory
- ☐ LDAP
- ☐ Oracle9iAS Single Sign-On
- ☐ Oracle Advanced Security

4 ¿Cual de las siguientes funciones realizan autentificación Java y servicios de autorización?

- ☐ Permite a un bean, servlet, o JSP ejecutarse con los permisos asociados con el cliente actual o un cliente específico.
- ☐ Gestiona políticas de control de acceso en el 'Oracle Internet Directory'.
- ☐ Integra autentificación mediante 'Oracle9iAS Single Sign-On' con aplicaciones Java.
- ☐ Valida 'user sign-ons'.

Corregir | Reset | Mostrar

Anterior | Pagina 1 de 1 | Siguiente | Ver Solucion Test

(a)

Conceptos generales sobre Oracle
Asignatura: Gestores Bases de Datos - Tema: Oracle

RECORDATORIO: Respuestas correctas señaladas con color amarillo.

1 La versión 'Enterprise' del gestor Oracle te permite monitorizar tu entorno Oracle9iAS de las siguientes maneras:

- Operaciones de Gestión
- Configuración
- 'Single Sign-On'
- 'Discovery'

2 ¿Que característica del producto te permite guardar una representación de los datos de una instancia Oracle9iAS?

- Oracle9iAS Farm
- Oracle9iAS Cluster
- Dynamic Monitoring Service (DMS)
- Performance Manager

3 ¿Que componente del producto te permite acceder a una aplicación sin tener que reentrar el usuario y la contraseña cada vez que se accede?

- Oracle Internet Directory
- LDAP
- Oracle9iAS Single Sign-On
- Oracle Advanced Security

4 ¿Cual de las siguientes funciones realizan autentificación Java y servicios de autorización?

- Permite a un bean, servlet, o JSP ejecutarse con los permisos asociados con el cliente actual o un cliente específico.
- Gestiona políticas de control de acceso en el 'Oracle Internet Directory'.
- Integra autentificación mediante 'Oracle9iAS Single Sign-On' con aplicaciones Java.
- Valida 'user sign-ons'.

(b)

Figure 3. Example of Active Online Test: (a) Test with 4 questions: multiple choice (1 and 4) and selection (2 and 3). (b) Test key without active content.

simbolos del codigo morse
Asignatura: Lenguajes no orales - Tema: codigo morse

Ver Solucion Test
Emparejar con una de las opciones del recuadro:

1	.....
2	.....
3	.....
4	-
5	...
6	....
7	---
8	---
9	.....
10	.....

☐ A) S
☐ B) J
☐ C) 0 (cero)
☐ D) 9
☐ E) C
☐ F) 6
☐ G) T
☐ H) 1
☐ I) Q
☐ J) S

Responde escogiendo una opción

(a)

Símbolos del código Morse
Asignatura: Lenguajes no orales - Tema: codigo morse

1	F	.....
2	J	.....
3	H	.....
4	G	-
5	A	...
6	I	....
7	B	---
8	E	---
9	C	.....
10	D	.....

6
 5
 1
 T
 S
 Q
 C
 0 (cero)
 9

(b)

Figure 4. Active Online Tests must implement a wide variety of test modalities. A test using crossed associations is shown in this example of Morse code. (a) Original Test. (b) Test key without active content.

The general aspect of the properties sheets for the test and each question can be analyzed in Figure 6 and Figure 7. The layout is divided into three main areas: Menu, content and properties. From the menu area the user can open and edit existing AOTs, create new ones, and change some properties from the general profile. In the content area, all the properties of the different objects (quiz, question, users, etc...) are available. The properties area is context-dependent, and the number and types of items in this area vary depending on the type of test; for instance, in a control test, a “Users” menu is present, while no “Users” menu is present for a self-evaluative test. Figure 7 indicates all the active content items in the content area. The “Statistics” item is only present for a control AOT. In Figure 8, a snapshot of a quick-statistics page is shown, where the number of right, wrong, and not answered questions are reported for each student (two, in this case). A final mark can be obtained, taking into account whether wrong answers are computed in a negative way or not. Many statistics related to the students responses to the tests are generated in a easy way and can be exported into a worksheet for further analysis. In Figure 9 some graphs which can be automatically generated are shown: (a) Comparison of right and wrong answers for two different groups, (b) evolution of one student with respect to the mean of the group, and (c) distribution of marks in the whole class.

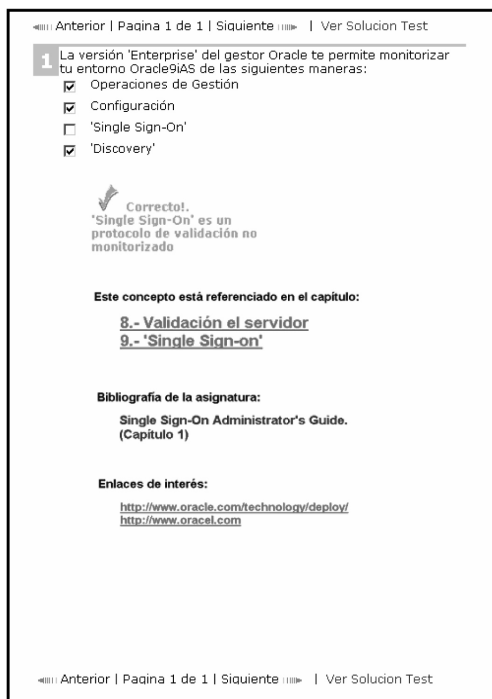


Figure 5. Active content is presented individually for each right answer: Brief Explanation, Syllabus reference, Bibliography and Web links. Accessing the dynamic content involves the student into an active learning process.

Gestión de los Quiz




Menú	Editar Propiedades Quiz		 Editar Preguntas  Borrar Quiz		
<ul style="list-style-type: none"> • Abir Quiz • Crear Nuevo Quiz • Cambiar Datos • Salir 	Título: Conceptos generales sobre Oracle Asignatura: <input type="text" value="Gestores Bases de Datos"/> , otra: <input type="text"/> Tema: <input type="text" value="Oracle"/> , otro: <input type="text"/> Descripción: Hay que responder 4 preguntas sobre Oracle.				
	Datos Generales Estado <input checked="" type="radio"/> Activado <input type="radio"/> Desactivado <input type="radio"/> Programado día <input type="text" value="1"/> mes <input type="text" value="Julio"/> año <input type="text" value="2005"/> -> hora <input type="text" value="00"/> : <input type="text" value="00"/>				
	Preferencias <input type="checkbox"/> Establecer fecha límite de realización: día <input type="text" value="1"/> mes <input type="text" value="Julio"/> año <input type="text" value="2005"/> -> hora <input type="text" value="00"/> : <input type="text" value="00"/>				
	Preguntas por Página: <input type="text" value="10"/> Apariencia de las Cabeceras: <input checked="" type="radio"/> 1 <input type="radio"/> 1 <input type="radio"/> 1 <input type="radio"/> 1				
		<input type="button" value="Cambiar"/> <input type="button" value="Cancelar"/>			

Figure 6. Properties sheets for a quiz. The user can select the subject, topic, description, activation state, date of release, number of questions per page, and appearance for each type of quiz.

Gestión de los Quiz




Menú	Editar Pregunta Del Quiz		 Editar Propiedades  Borrar Quiz		
<ul style="list-style-type: none"> • Abir Quiz • Crear Nuevo Quiz • Cambiar Datos • Salir 	Título: Conceptos generales sobre Oracle Editar Pregunta N° de Pregunta: 1 ¿? [La versión 'Enterprise' del gestor Oracle te permite monitorizar tu entorno Oracle&IAS d A [Operaciones de Gestión B [Configuración C [Single Sign-On' D [Discovery' Correcta/s: <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/> D				
	Texto a mostrar cuando "Respuesta Correcta": <input type="text" value="'Single Sign-On' es un protocolo de validación no monitorizado"/>				
	Texto a mostrar cuando "Respuesta Incorrecta": <input type="text" value="Intenta otra vez. Piensa en autenticación..."/>				
	Capítulos <input type="button" value="Cambiar"/>				
	Bibliografía <input type="button" value="Cambiar"/>				
		Enlaces de interés <input type="button" value="Cambiar"/>			
		<input type="button" value="Guardar"/> <input type="button" value="Cancelar"/>			

Figure 7. Properties sheet for each of the questions in one quiz. For each question, possible answers, the right answer, feedback explanations, and active content must be edited.

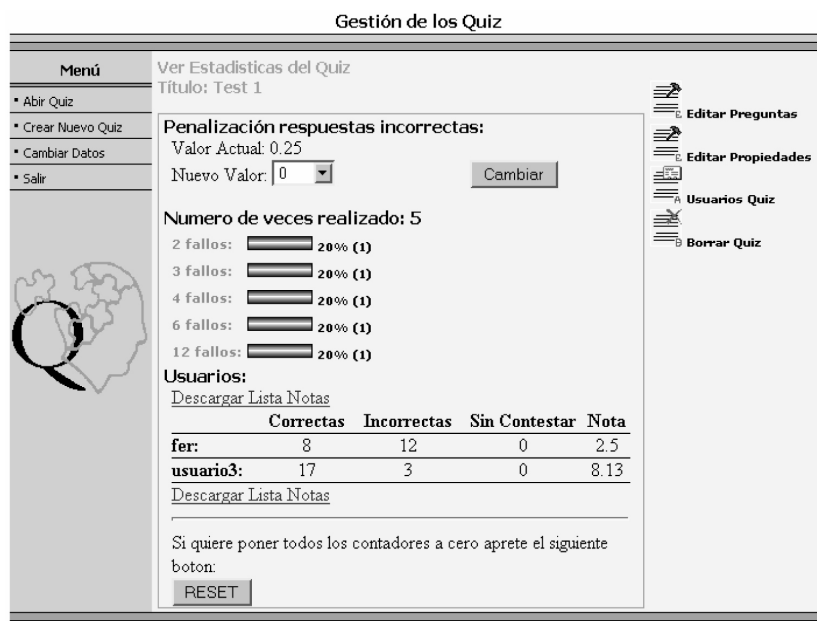


Figure 8. Statistics sheet. A group of users is associated to the test, and all their marks can be exported to a worksheet in the case of an evaluative test.

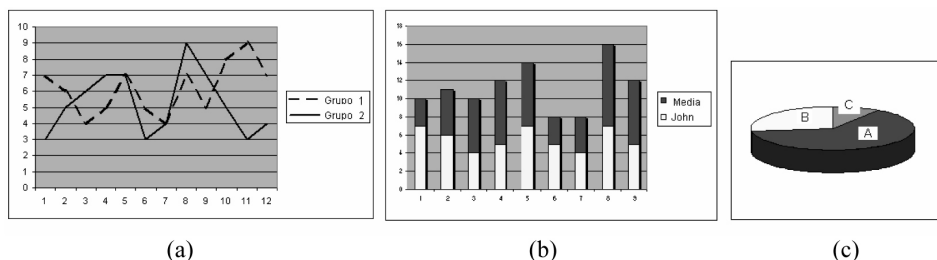


Figure 9. Several analyses of responses can be automatically obtained for each test. (a) Group-to-group, (b) student-within-the-group average, (c) chart of marks distribution within one group.

4. Conclusion

The use of the AOT methodology appears to be a helpful tool for formative assessment, evaluation control and global support in the Higher Education Framework. The collaborative essence of this strategy, the presence of active content and the use of e-learning techniques push students to be involved in the whole learning process (E-learning, 2005). The general model appears to be flexible and can be adapted to multi-disciplinary contexts. This methodology, and

the web applications described above, are being successfully tested in the framework of three different subjects of the disciplines of Electrical Engineering, Journalism, and Aeronautic Management, in the Autonomous University of Barcelona in Spain. Our study is set to last three years, involving the construction of the corpus of questions, the analysis of the students' evolution and the comments of the different teachers involved. If this model is applied to the field of second language acquisition, taking into account the framework of the European Language Portfolio (Council of Europe (2001)), where special attention is paid to self-assessment in the Dialang project and to the involvement of the learner in the second language learning process, we believe that students and teachers will greatly benefit from both the role of evaluation and the use of new technologies in the process of training the students towards a multilingual European perspective. However, we cannot hide the fact that several drawbacks can hinder the natural evolution presented in this methodology, such as the implementation of the feedback impact lines, or the response of the teachers to the amount of effort which implies the elaboration of the active content. Both issues fall beyond the scope of this paper but will be the focus of further pieces of research.

References

- IS, 2005. Information Society. http://europa.eu.int/information_society/ European. Union.
- Bol. 1999. Bologna Declaration <http://www.bologna-bergen2005.no> Bergen Conf.
- Bodomo, A., Luke, K. K. & Anttila, A. 2003. "Evaluating Interactivity in Web-Based Learning Global". *E-Journal of Open, Flexible and Distance Learning* vol. 3, No. 1.
- Brooker, R., Muller, R., Mylonas, A. & Hansford, B. 1998. "Improving the Assessment of Practice Teaching: a criteria and standards framework". In *Assessment and Evaluation in Higher Education* Vol 23, No. 1: 5-20.
- Common European Framework of Reference for Languages: Learning, teaching, assessment.* Council of Europe, 2001: Cambridge University Press.
- Edwards, S. L. & Bruce, C. S. 2002. "The assignment that triggered change: assessment and the relational learning model for generic capabilities". Learning Communities and Assessment Cultures Conference. University of Northumbria, U.K. August 2002.

Dearing, R., 1997 "Higher Education in the Learning Society: Report of the National Committee of Inquiry into Higher Education" . Sheffield: DfEE.

EUA, 2003. EUA Home page <http://www.eua.be/eua/index.jsp>. European University Association.

Eval, 2005. "Evaluation methods in higher education". <http://www.edtech.neu.edu/teachingsupport/assessment/links/>. Northwestern University.

E-learning, 2005. "Education and training". <http://www.europa.eu.int/comm/education/programmes/elearning>. European Union.

Fielding, A. & Bingham, E., 2003. "Tools for Computer-Aided Assessment" *Learning and Teaching in ACTION*. Vol. 2 Iss. 1 Winter 2003.

Grabinger R.S. and Dunlap J.C., 2000. "Rich environments for active learning: a definition". In Squires D., Conole G. and Jacobs G. (eds), *The Changing Face of Learning Technology*. Cardiff: University of Wales Press.

Harvey, J. & Moge, N., 1999. "Pragmatic issues when integrating technology into the assessment of students". In S. Brown & P. Race & J. Bull (Eds.), *Computer-assisted assessment in Higher Education*. London: Kogan Page.

Havnes, A., 2002. "Examination and learning: an activity-theoretical analysis of the relationship between assessment and learning". Learning Communities and Assessment Cultures Conference. University of Northumbria, U.K. August 2002.

Klenowski, V. 1996. "Connecting Assessment and Learning". British Educational Research Association Annual Conference. Lancaster University U.K. September 1996.

Lorraine, S, D. Jesse, S. H. Billig, 2002 "Creating a WEB of Evidence of Student Performance in A Technology-Rich Learning Environment" *International Journal on E-Learning*, Vol. 1, No. 1: 33-42.

Maier P. and Warren A., 2000. "Integrating Technology in Learning and Teaching, a practical guide for educators". Kogan Page 2000.

McKenna, C., 2001. "Introducing computers into the assessment process: what is the impact upon academic practice?" Higher Education Close Up Conference 2, Lancaster University, U. K. July 2001.

Messick, S. J., 1999. *Assessment in higher education: Issues of access, quality, student development and public policies: A festschrift in honor of Warren W. Willingham* . Mahwah: Lawrence Erlbaum Associates.

Sanders, W. L., Horn S. P., 1995. "Educational Assessment Reassessed: The Usefulness of Standardized and Alternative Measures of Student Achievement as Indicators for the Assessment of Educational Outcomes." *Education Policy Analysis Archives*. Vol. 3, n. 6.

Paxton, M., 2000. "A linguistic perspective on multiple choice questioning". *Assessment and Evaluation in Higher Education*. Vol. 25, No. 2.

Petre M. et al., 1998. "Innovations in Large-Scale Supported Distance Teaching: Transformation for the Internet, not just Translation". *Journal of Engineering Education*: October 1998.

Whimbey, A. 1985. "You Don't Need a Special 'Reasoning' Test to Implement and Evaluate Reasoning Training." *Educational Leadership*, Vol, 43, No. 2 :37-39.

NATURE OF THE ARTICLES

Computational Linguistics
Foreign Language Teaching and Learning
Forensic Linguistics
Language for Specific Purposes
Language Planning
Second Language Acquisition
Speech Pathologies
Translation

FORMAT OF THE ARTICLES

1. Contributions should be written in English, using the software package Word. Three printouts of the article and a diskette should be provided. Title of the paper and name, address, telephone number and e-mail address of the author should be included on a separate sheet. Submissions by e-mail attachment are also accepted.
2. Articles should not exceed 25 double-spaced pages (12 pt Times New Roman) including an abstract of 10 lines at the beginning and five keywords, in English and a translation in French, German or Spanish. Please do not include footnotes.
3. References should be given in the following format:
Blakemore, D. 1987. *Semantic Constraints on Relevance*. Oxford: Blackwell.
Richards, C. 1985. "Inferential pragmatics and the literary text". *Journal of Pragmatics* 9: 261-285.
4. All correspondence should be addressed to:
Rosa Alonso (ralonso@uvigo.es) or Marta Dahlgren (dahlgren@uvigo.es)
Universidade de Vigo
Facultade de Filoloxía e Traducción
Lagoas-Marcosende
36200 Vigo Spain