

Enhancing social interaction in massive professional English courses

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ABSTRACT

This paper describes the long way undergone in UNED, the Spanish national distance university, in the last ten years to improve our teaching of the English language with the assistance of computers and, more specifically, with the emerging web technologies. There are a number of milestones in this long way, such as the development of the aLF in house platform from the early MIT dotLearn which allowed students and teachers to engage in English only interaction, either as part of the usual educational routine or as part of teaching innovation networks, i.e., projects undertaken by volunteering students, sometimes with students from other language subjects, degrees or universities. For years all this work was written and there was little chance for students to develop their oral capabilities. The incorporation of UNED's webconferencing system and the AVIP-PRO tool enabled asynchronic evaluation of oral production and interactive skills. One of the increasing problems of UNED, the unbalanced ratio between students (300,000) and teaching staff (1,500) has found a very promising option in dynamic organization and social networks, whereby large groups are automatically split into small groups with an advanced student as monitor who assumes a number of conventional teacher's tasks, such as providing feedback, correcting errors, controlling the group collaborative dynamics, etc. The role of monitor is assigned by a rather simple procedure of social labelling, an idea half way between web 2.0 and gamification. This paper describes UNED's experiences with the application of all these technologies to English language distance learning..

Keywords: *Computer Assisted Language Learning, oral competences, evaluation, social/collaborative learning*

INTRODUCTION

In foreign language teaching, we have been familiar with concepts such as continuous formation and tailor-made courses for quite some time. The reality these days is that changes at the technological, economical, and social levels occur so rapidly that, as educators, we are obliged to offer flexible and customized learning formulae to our busy and demanding adult students. The worst case scenario here is not one where students fail their courses because of lack of time to study, but one in which they quickly drop out of the courses if their learning expectations are not satisfactorily, quickly and comfortably met. It does not seem to be reasonable to expect people to alter their busy lives and tight schedules to acquire new knowledge and skills, unless these are absolutely essential (and the corresponding courses last for very limited periods of time). Specifically, the demand for EFL (English as a Foreign Language) tuition is one that requires effective courses which allow students to start communicating more or less competently in the language from an early stage with a reasonable investment of time and effort. However, while EFL learning may involve an initially brief phase to explicitly learn the basics, the subsequent practise and perfecting processes require a large amount of time and effort on the part of the student. If he is unable to use the language as part of his working or social life, then he must turn to EFL courses to meet this need, something which, as mentioned above, his busy life

may not make possible. Given this situation, people often turn to distance learning as a way to match their personal and/or professional needs to their circumstances.

In the last few decades, distance learning has become an increasingly popular modality for adults wishing to pursue EFL studies. Such courses permit, theoretically speaking, a very large number of adults to study the language. Exact personal reasons for opting for distance learning differ but include autonomy, privacy, and the flexibility of timetables, geographical location and study rhythms that it offers (Roe, 1994). However, while such courses offer advantages to their students, they also entail certain disadvantages, including very little peer contact and access to a tutor or teacher (curiously, Mueller [2001] counts the latter among the positive aspects, since he believes that teacher-student relations are often not as positive and stimulant as everybody would like to think!). In theory, the role of the teacher in EFL courses includes preparing materials and providing tuition and feedback on the student's performance. Furthermore, peer contact provides both social interaction and academic support. However, the reality of distance EFL courses is that teacher feedback is often limited and peer contact scarce.

In the case of institutions like the UNED (*Universidad Nacional de Educación a Distancia*), which specialises in distance learning, the various English courses can have up to 15,000 students. Hence, a problem present with these courses is that, as the number of students grows, it becomes progressively harder for the teacher(s) to maintain control of the overall learning process of the group: follow the progress of individual students, identify their difficulties, providing help and guidance accordingly, introducing modifications in the way in which the materials are being studied to adapt to individual needs, etc. In this case of very high student numbers, the teacher's role is reduced to administrative tasks, being able to deal with only a very small percentage of problems that certain students present via e-mail or telephone calls (not always the ones who really require the help!). Furthermore, effective EFL learning would require the practise of interactive skills in communicative contexts, something that is obviously greatly limited in distance learning.

Computer technology has been used to try to overcome these problems. Since the invention of computers, they have proven to be good working companions to professionals, providing assistance in tasks of great volume and complexity. It is, therefore, not surprising that educational institutions like UNED have gradually adopted computing technology for most of the services they provide, both administrative (accessing information about registration, diplomas, etc.) and academic (e.g., searching for publications across libraries, listening to stored radio seminars, correcting exams!). On-line learning revolves around institutional e-Learning platforms and their related resources and tools (in the case of English language students: on-line exercise-based practice, student forums in English, videoconferences, etc.) (Pavón Rabasco & Cancelas y Ouviaña, 2002; Gimeno Sanz, 2006). This paper describes the long way undergone in UNED, in the last ten years to improve our teaching of the English language with the emerging web technologies. In the next sections the milestones along this long path are presented, such as the development of the aLF in house platform from the early MIT dotLearn which allowed students and teachers to engage in English only interaction for the first time. For years all this work was written and there was little chance for students to develop their oral capabilities. The incorporation of UNED's webconferencing system and the AVIP-PRO tool enabled asynchronic evaluation of oral production and interactive skills. One of the major problems of UNED, the unbalanced ratio between students and teaching staff, has found a very promising option in dynamic organization and social networks, whereby large groups are automatically split into small groups with an advanced student as monitor who assumes a number of conventional teacher's tasks, such as providing feedback, correcting errors, controlling the group collaborative dynamics, etc. The role of monitor is assigned by a rather simple procedure of social labelling, an idea half way between web 2.0 and gamification. In the next sections UNED's experiences with the application of all these technologies to English language distance Learning are presented.

THE ALF PLATFORM AND CALL

As well as the use of general computer tools for language learning, there is also a specific line of research dedicated to the design and development of computer systems for this purpose (known as Computer Assisted Language Learning; henceforth, CALL). Paradoxically, most existing CALL programs have been designed for classroom use and require face-to-face teacher's assistance and peer participation (they are, therefore, not suitable for distance learning). Furthermore, they are mostly receptive by nature, offer only limited language production, and are used individually (which goes against the actual principle of learning a language as a vehicle for communication).

A milestone in the process of improvement the teaching of languages in UNED, and specifically EFL, has been the adoption of its Learning platform aLF. A learning platform is an integrated set of interactive online services that provide teachers and learners with information, tools and resources to support and enhance educational delivery and management (Dillenbourg, 2000). At a simple level, it could be said that platforms reproduce or simulate conventional

real-world education by integrating equivalent concepts for homework, classes, evaluation, etc., and even external academic resources. As this author puts it, platforms (also known as virtual learning environments) are the basic component of contemporary distance learning, although they can also be integrated in a face-to-face learning context (what is known as blended Learning of b-Learning).

There are very many platforms available these days. As the Centre of Computing Services at UNED explains on the institution's web site (www.uned.es), when UNED's virtual campus was started in the year 2000, a commercial e-Learning platform was initially used. With time it became evident that this system was not sufficiently flexible for the university's needs, and hence the platform aLF (a system developed by researchers in the School of Computer Science) was gradually introduced as a substitute. UNED's current own in-house platform, aLF, is a community-based learning platform developed from MIT's dotLRN. In particular, according to aLF's developers, this was selected for the following properties: "1) Virtual community approximation, 2) User centred approach, 3) Collaborative spaces, 4) E-mail centred work and 5) Technical efficiency [and also:] 1) Adaptivity, 2) Reusability, 3) Accessibility, 4) Internationalization, 5) Support for educational standards, 6) Friendly interface (more usable and accessible), 7) User tracking, 8) Blogs, 9) RSS, 10) Feeds, 11) Wiki pages and 12) Web services to facilitate the integration of external components." (<http://www.dotlrn.org/users/uned>). The main of aLF are on innovation in relation to on-line and collaborative learning. Modifications have been necessary and are still taking place but they do not imply a drastic restructuring of the platform, its basic structure or any of its tools for that matter.

The key concept in relation to aLF is that of *virtual community* (Rheingold, 2000) and, accordingly, its whole design is oriented to enable and promote group work (see figure 1), which is of utmost importance in EFL. As Bird (2010) says, wikis, blogs and forums appear to be best for open production written practice and for identifying individual students' error patterns. However, systematic accuracy corrections in public are probably inappropriate, so the teacher has the option of going to the Evaluation tool in aLF, where he can correct students' assignments and provide as much feedback as necessary. For learners who have a low-level of confidence or accuracy in the target language, the foreign language teacher can use the forum to get them to plan out a conversation, which they can then try out without that scaffold. For learners working at higher levels, the teacher can greater exploit forums for fluency practise, for example, by asking learners to debate a topic on the forum and use posts as stimuli for discursive writing.

Figure 1. The virtual course of the English Grammar subject in aLF.

THE AVIP-PRO TOOL

Until the AVIP-PRO was developed for distance language learning courses in the UNED, there has essentially been little or no oral training and testing in online courses. In institutions with small numbers of students actual face-to-face oral evaluation can be undertaken, and in distance education, the telephone had been used for such purposes or even Web-conferencing tools like Skype. However, as the number of students rise and synchronous evaluation is not possible, it was necessary to develop a tool that enabled tasks to be prepared where students could undertake any kind of online oral communication and training, combining the flexibility of the AVIP framework together with the task-based structure of aLF. Institutionally, the tool is scalable and can be managed from within aLF as a standard task type enabling large-scale training and evaluation to be undertaken. Such an integration facilitates interoperability (Read et al., 2003).

The AVIP-PRO is built on the AVIP level 2+ architecture, which was developed as a web-based conferencing tool built around Flash technology. It enabled users to connect together from a standard web browser, sharing a simulated desktop environment where presentations can be used as a backdrop for an interactive video class (enabling the speaker to annotate the presentation or add any other details). Control is required for user participation (the same phenomena is present in face-to-face classroom teaching), to prevent everyone from speaking at the same time. Someone, typically a lecturer or tutor, defined as the moderator and could talk, control the presentation, and let other members of the group speak. In a similar way to the AVIP level 1 and 1+, the sessions are recorded for future use. As well as its application for standard distance education taught classes, the AVIP level 2+ is also very useful for a lecturer (or tutor) to record small video fragments illustrating some concept related to a course s/he teaches (where no other users are present in session), which can be recorded and left for student use. For example, lecturers on language courses, where students need to learn how to speak in a foreign language, can record fragments of them speaking in that language, illustrating the concepts the students are currently learning. In the AVIP-PRO, the moderating role has been removed so that any authorized student can connect to the tool, follow the instruction for a given test, and undertake the audio/visual recording for subsequent review and correction.

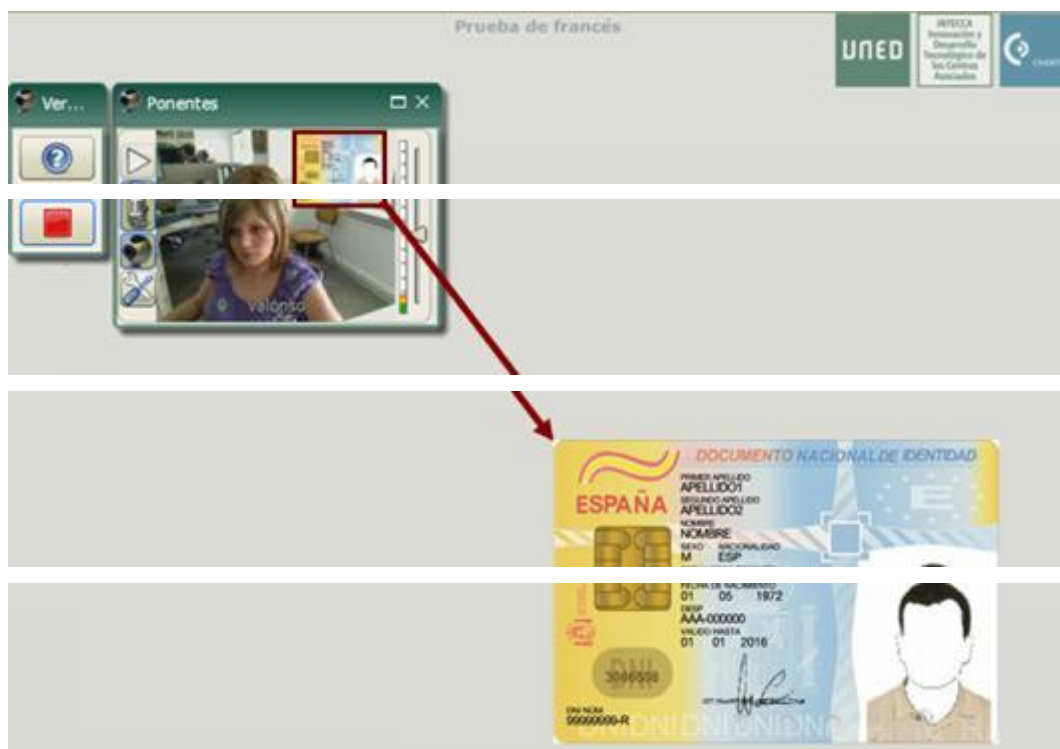


Figure 3. Example of the display of a student's ID card during a sesión.

The presentation and control of the task that the student has to undertake comes from the e-Learning platform in which the tool is installed (aLF). The use of the AVIP-PRO within aLF has three roles associated with it: firstly, as a lecturer or person responsible for setting up the task to be performed and evaluated. Secondly, as a student, who will undertake the activity, and thirdly and finally, as a tutor or person who will undertake the evaluation. AVIP-PRO represents a didactic tool that can be used for multiple functions, namely the training of specialized oral discourse (of particular relevance in disciplines like law and business), real-time oral evaluation (fairly common in face-to-face institutions with a reasonable student-teacher ratio) and training and evaluating second language oral competences online. Furthermore, language learning tasks can be prepared where students undertake online oral communication and training, combining the flexibility of the AVIP framework together with the task-based structure of aLF.

CONCLUSIONS AND FUTURE WORK

This paper has presented the current forms of technology-based language teaching at UNED for the development of receptive, productive and interactive written and oral capabilities. It has been explained that the institutional Learning platform was built over the enterprise information system dotLRN and that, as such, it is robust and scalable, and is actively used by more than more than 200,000 people. Over the last couple of years it has been modified and extended to be prepared for use in the new courses and degrees. As part of this work, both the general AVIP and also the AVIP-PRO tools have been integrated. The AVIP level 2+ tool can be accessed from within a course in aLF (for synchronous communication), should a lecturer or tutor wish to have a virtual meeting with the students, or to prepare a small video fragments (where no other uses are present in the session). It can also be used for asynchronous oral evaluation of large student numbers.

Finally, it has been explained that collaboration is a key concept in UNED's educational methodology as it facilitates the general mobilisation of the cognitive mechanisms underlying communication in authentic social contexts, giving rise to the development of the relevant knowledge and skills. However, the process of forming groups in such large courses must be automatic and fine-grained because, as Alfonso et al. (2006) note, in collaborative learning the way in which students are grouped together affects the results of the learning experience.

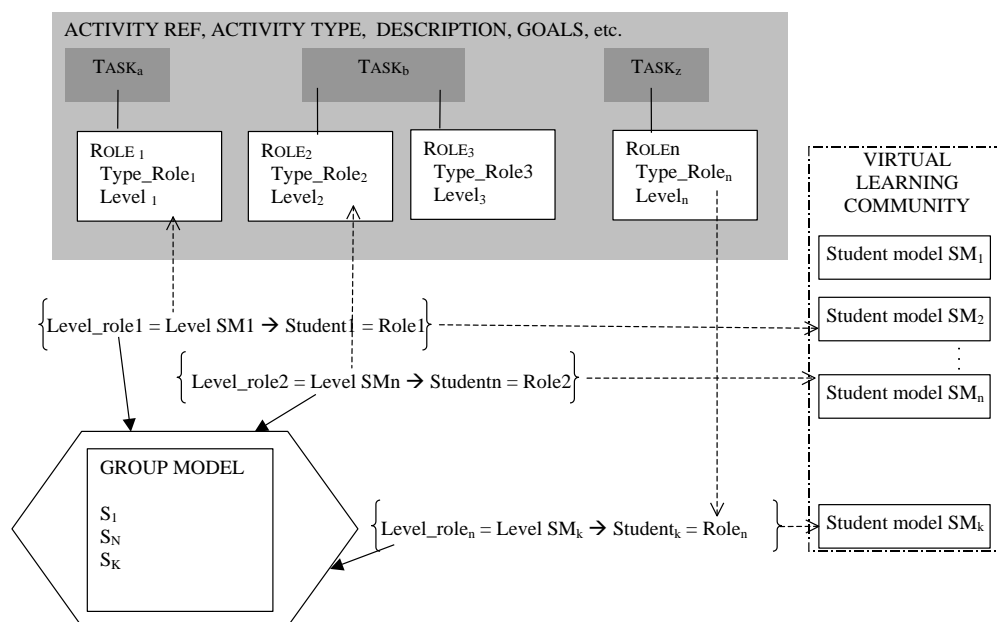


Figure 4. Adaptive group formation using collaborative templates.

The group formation process currently being explored can be seen in figure 4 above. It is adaptive in the sense that the algorithm is used to dynamically match the students available at a particular moment in the virtual community. Failure to participate causes re-allocation of students, and in the worst case, group dissolution. A fundamental aspect of collaborative group work in massive language courses is that students with a higher competence state (measured socially by peer approval/voting) are proposed for the role of student monitor. The monitoring and diagnosis of a group's work by other students in the virtual learning community is a fundamental part of the framework, for two reasons. Firstly, it enables students with higher communicative language competence states to evaluate the work being generated by lower level students, which is argued to be very reinforcing and rewarding for all involved. Secondly, it provides a solution to the computational intractability of the analysis of the

open linguistic production, particularly for the oral modality. It is believed that the implementation of this project will be a qualitative improvement in key aspects of the distance foreign language process such as student correction and feedback.

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REFERENCES

Alfonseca, E., R.M. Carro, E. Martín and A. Ortigosa (2006). The Impact of Learning Styles on Student Grouping for Collaborative Learning: A Case Study. *User Modeling and User-Adapted Interaction*: 377-401.

Bird, Ph. (2010). Creative Ideas for Language Learning with Moodle. *English Language Teaching Global Blog*. Oxford University Press. <http://oupeltglobalblog.com/2010/06/01/creative-ideas-for-language-learning-with-moodle/>

Dillenbourg, P. (2000). Virtual Learning environments. EUN Conference 2000: Learning in the new millennium: Building new education strategies for schools. <http://tecfa.unige.ch/tecfa/publicat/dil-papers-2/Dil.7.5.18.pdf>

Gimeno Sanz, A. (2006). Proyecto InGenio. Gestor de recursos para el aprendizaje de idiomas. Marco ELE. *Revista de Didáctica E/LE*, No. 2.

Mueller, R.J. (2001). Some thoughts on relationships in the classroom. Illinois Association for Educational Communications and Technology, Vol. 6.

Pastor, R., Read, T., Ros, S., Hernández, Roberto & Hernández Rocaél (2009). Virtual Communities Adapted to the EHEA in an Enterprise Distance e-Learning Based Environment. In D. Hutchinson et al. (eds.) *Online Communities and Social Computing Lecture Notes in Computer Science*. Volume 5621. Springer, Berlin: 488-497.

Pavón Rabasco, F. & Cancelas y Ouviaña, L.P. (2002). Nuestras asignaturas pendientes: inglés e informática de un modo flexible y a distancia. *Pixel-bit*, No. 18. <http://www.sav.us.es/pixelbit/articulos/n18/n18art/art1810.htm>

Read, T., Verdejo, F. & Barros, B. (2003). Incorporating interoperability into a distributed eLearning system. In *Proceedings of ED-MEDIA 2003 (Association for the Advancement of Computing in Education; AACE)*, Hawaii, 23-28/6/2003.

Read, T., Bárcena, E., Pastor, R., Vega, J., Ros, S., Rodrigo, C., Hernández, R. & Vindel, J.L. (2010). AVIP-PRO: Oral Training and Evaluation Tool for e-Learning in the UNED. In *Proceedings of EADTU: Strategies and business models for lifelong learning*. Zermatt: 338-345.

Rheingold, H. (2000). *The Virtual Community: Homesteading on the Electronic Frontier*. MIT Press, London.

Roe, P. (1994). The case for distance: rethinking the foundations. In K. Richards and P. Roe (eds.) *Distance Learning in ELT*. Modern English Pub. and British Council. Macmillan, London: 54-76.