

## Project Description

### University of Coimbra (Portugal)

**Challenge:** To foster the effective use of computer-mediated synchronic and asynchronous communication systems in FL teaching to facilitate learning

**Tools:** Moodle, Colibri, Skype, email, forums, Text to Speech (SitePal)

**Actions:**

- a) Portuguese as a Foreign Language (level A1) Teaching and Learning Laboratory (online course): PFL (A1)\_TL Lab
- b) Instructor-Learner Interaction Corpus

### 1. Introduction

The challenge presented to the University of Coimbra in the context of the E-LENGUA project was addressed through the development of an online Moodle-based laboratory designed to foster the use of ICT in the teaching and learning of Portuguese as a Foreign Language (PFL). The **PFL (A1)\_TL Lab** was designed to create opportunities for learning by doing, thus promoting incidental learning of PFL by beginner learners and the development of a wide range of teaching skills in novice instructors.

The **PFL (A1)\_TL Lab** was set up as an online course where two types of students worked together and mutually benefited from each other's complementary interests and needs: Erasmus students, who are A1 level PFL learners, and MA students in the Portuguese as a Second and Foreign Language program at the Faculty of Arts and Humanities of Coimbra University (*Faculdade de Letras da UC: FLUC*).

The online **PFL (A1)\_TL Lab** thus allowed MA students to face the challenges of instructional design and development, and to gain tutoring experience with genuine learners of PFL, while simultaneously providing Erasmus students with extra PFL instructional time in a game-type environment.

A further by-product of the online course's synchronous activities is an innovative instructor-learner oral interactions *corpus* in video-audio format, initially conceived as an empirical basis for research purposes, but also invaluable for the development of tutor self-monitoring activities (to consider in phase 2 of the project cycle).

## 2. State of the art

The development of the **PFL (A1)\_TL Lab** draws on contributions from prior experiences with ICT and E-learning in Higher Education Institutions (HEI), and especially on work focusing on collaborative learning in virtual communities. The **PFL (A1)\_TL Lab** design also took into account action-training programs for teachers and empirically based principles of instructed second and foreign language acquisition and learning (Ellis, 2005; Long, 2011).

### ICT in HEI

Technological development has created a global village (McLuhan, 1964) where traditional forms of education are being challenged every day. HEI, in particular, where technological development has for long been an object of academic inquiry<sup>1</sup>, are now also faced with the need to accommodate the instrumental facet of ICT into their own educational practices. As stated by Elango, Gudep & Selvam (2008: 31), *“Higher education institutions operating in countries like America, UK, Australia, New Zealand, European Union (EU) and various other developed countries are making efforts to re-adjust in the light of the contemporary challenges”*. This effort is driven by the fact that ICT have become pervasive and self-imposing in contemporary life to a point that they cannot be ignored by HEI, and such that official policy makers have engaged in the explicit endorsement of ICT in HEI teaching and learning processes (for example, the EU, in the context of the implementation of the Bologna process in European HEI; Lemos, Pedro & Matos, 2010).

### E-Learning and collaborative learning

E-learning is a privileged form of fostering the use of ICT in teaching and learning at HEI, with additional benefits in what concerns the range of potential beneficiaries, given the extraordinarily adaptive nature of E-learning to learners' common needs and limitations. With E-learning, geography is no longer an obstacle for accessing high quality education, and difficulties imposed by learners' personal schedules and temporal availability can be overcome in online courses that rely primarily on asynchronous activities and that are organized as to take into account each participant's own learning pace. E-learning courses can focus on the common intellectual interests of large groups of people who are separated by time and space, providing a medium for community building and for the wider dissemination of local experiences in different fields of expertise. Thus, e-learning is not only an adequate response to the lifelong learning challenge, as it is also an effective means for creating learning communities.

According to Tinto (2003: 2), learning communities promote active and socially collaborative learning processes since they are sustained by shared knowledge, shared knowing and shared responsibility: *“By asking students to construct knowledge together, learning communities seek to involve students both socially and*

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<sup>1</sup> “(...) technological innovation, long a hallmark of academic research, may now be changing the very way that universities teach and students learn” (The Economist Intelligence Unit, 2008, p.4).

*intellectually in ways that promote cognitive development as well as an appreciation for the many ways in which one's own knowing is enhanced when other voices are part of that learning experience. (...) Learning communities [furthermore] ask students to become responsible to each other in the process of trying to know".* The **PFL (A1)\_TL Lab** design was inspired by this construct; even though the two groups of students played different roles in the online course (MA students acted as tutors and level A1 PFL learners acted as students), their specific roles made them mutually responsible for each others learning processes. Furthermore, tools such as the general forum, the tutor forum and the group forums enabled interactions based on shared knowledge and the collaborative construction of shared knowing.

### **Action-training of novice teachers**

As Merrill (2002: 50) states, *"Learning is promoted when learners are encouraged to integrate the knowledge into their everyday life"*. Action-training naturally derives from this premise as it fosters the development, by the trainee, of practical skills and know how in a professional scenario that becomes, for this same reason, an extremely meaningful learning environment. The apprentice is placed in real life situations that provide invaluable feedback regarding the effectiveness of actions and/or the need for revision of procedures. In the case of the e-tutor in a language course, the language learners' responses (or lack of them) in synchronous (and even asynchronous) interaction activities can signal the success of teaching approaches or else the presence of communicative breakdowns that must then be remediated, after careful examination and the consideration of the underlying causes. To this last effect, an action-training technique such as autoscropy (Fauquet e Strasfogel, 1967) provides the opportunity for individual insight into the teaching process, helping teachers to identify difficulties stemming from their own actions, to devise alternative approaches and to develop self-regulatory mechanisms. The audio-video recording of the synchronous activities of the **PFL (A1)\_TL Lab** online course, initially conceived as a corpus collection procedure, will now also be used to design autoscropy-like activities for novice teachers in training.

### **Principles of instructed Language Learning**

Following an extensive review of the literature and an empirically sustained approach to instructed second language learning and acquisition theories, both Ellis (2005) and Long (2011) have each, and independently, proposed a partially overlapping set of ten basic principles that guided the instructional design for the **PFL (A1)\_TL Lab**.

<b><i>Principles of Instructed Language Learning</i></b> (Ellis, 2005)	
1	<i>Instruction needs to ensure that learners develop both a rich repertoire of formulaic expressions and a rule-based competence.</i>
2	<i>Instruction needs to ensure that learners focus predominantly on meaning.</i>
3	<i>Instruction needs to ensure that learners also focus on form.</i>
4	<i>Instruction needs to be predominantly directed at developing implicit knowledge of the L2 while not neglecting explicit knowledge.</i>
5	<i>Instruction needs to take into account the learner's 'built-in syllabus'.</i>
6	<i>Successful instructed language learning requires extensive L2 input.</i>
7	<i>Successful instructed language learning also requires opportunities for output.</i>

8	<i>The opportunity to interact in the L2 is central to developing L2 proficiency.</i>
9	<i>Instruction needs to take account of individual differences in learners.</i>
10	<i>In assessing learners' L2 proficiency, it is important to examine free as well as controlled production</i>

**Methodological Principles for Language Teaching** (Long, 2011, based on the TBLT [Task Based Language Teaching] approach)

**Activities**

- |   |   |
|---|---|
| 1 | <i>Use task, not text, as the unit of analysis.</i> |
| 2 | <i>Promote learning by doing.</i>                   |

**Input**

- |   |  |
|---|--|
| 3 | <i>Elaborate input (do not simplify; do not rely solely on "authentic" texts).</i> |
| 4 | <i>Provide rich (not impoverished) input.</i>                                      |

**Learning processes**

- |   |  |
|---|--|
| 5 | <i>Encourage inductive ("chunk") learning.</i>               |
| 6 | <i>Focus on form.</i>  |
| 7 | <i>Provide negative feedback.</i>                            |
| 8 | <i>Respect learners' syllabuses/developmental processes.</i> |
| 9 | <i>Promote cooperative / collaborative learning.</i>         |

**Learners**

- |    |  |
|----|--|
| 10 | <i>Individualize instruction (psycholinguistically, and according to communicative needs).</i> |
|----|--|

Of special relevance for the design of the **PFL (A1)\_TL Lab** activities are principles 1, 2, 3, 4, 6, 7, 8, 9 and 10 (Ellis, 2005), and 1, 2, 5, 6, 7, 8, 9 and 10 (Long, 2011).

### 3. Target groups

The **PFL (A1)\_TL Lab** was set up as an online course where two types of students were granted the opportunity to work together and to mutually benefit from each other's complementary interests and needs:

- Erasmus students, who are A1 level PFL learners;
- MA students in the Portuguese as a Second and Foreign Language program.

Erasmus students are offered a 56 hours face to face course (including assessment) at FLUC (*Faculdade de Letras da Universidade de Coimbra*) that is delivered each semester, 4 hours a week, in groups with a mean of 37.5 students. Class time is insufficient to meet students' linguistic developmental needs and teachers find it especially difficult to focus on oral production and interaction skills in their overcrowded face to face classes.

On the other hand, MA students in the Portuguese as a Second and Foreign Language program have very limited or even no prior experience in PLF instruction and in instructional design and development.

The **PFL (A1)\_TL Lab** addressed the needs of both types of students, providing extra PFL tutor instruction for Erasmus students and a much needed action-training opportunity for MA students.

#### 4. Methodology and Development of the project

The 5 stage ADDIE Instructional Design (ID) method used as a framework in designing and developing educational and training programs was followed in the construction of the **PFL (A1)\_TL Lab**.

“ADDIE” stands for Analyze, Design, Develop, Implement, and Evaluate.

- i. Analyze – diagnose training/learning needs of target groups and identify general goals;
- ii. Design – formulate specific objectives and define the related activities;
- iii. Develop – prepare contents and resources;
- iv. Implement – provide the learners with course materials and deliver the course;
- v. Evaluate – assess all previous stages and reformulate anything that needs revision. Evaluation is present throughout the entire cycle, between each stage. (Miranda, 2009).

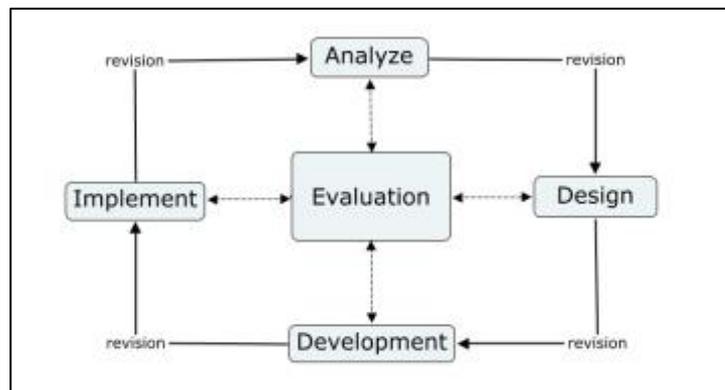
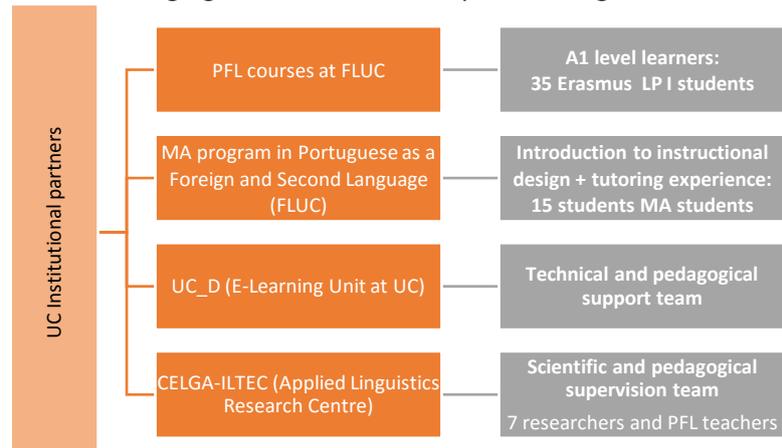


Figure 1: ADDIE's model - 5 stages

In 2016, the first module of the **PFL (A1)\_TL Lab**, focusing on oral skills activities, was created, and the full cycle of the ADDIE model was completed over the course of 6 months:

Dec. 2015 to Feb. 2016	<p>Draft of the E-LENGUA@UC action proposal</p> <p>A. Goals:</p> <ol style="list-style-type: none"> <li>1. To design and build an instructor assisted A1 level Portuguese online course, conceived as a teaching lab for novice/training teachers of PFL and thus providing extra instruction time for A1 level learners of Portuguese (Erasmus students). A step-by-step approach was established from the start, with the plan to add new modules and features with each group of participants throughout the life cycle of the E-LENGUA project.</li> <li>2. To create an instructor-learner interactions <i>corpus</i> (by-product of 1) for research purposes.</li> </ol>
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<p>B. Resources: bringing the UC institutional partners together</p> 	
<p>Figure 2: UC institutional partners for implementation of the E-LENGUA action proposal</p>	
<p>C. Initiate design, development and intermediate evaluation: First drafts of instructional activities by MA students.</p>	
<p>March 2016</p>	<p>Evaluation of the first drafts of the instructional activities by the scientific and pedagogical supervision team (Ana Paula Loureiro, Carla Ferreira, Cristina Martins, Conceição Carapinha, Isabel Pereira, Isabel Santos and Sandra Marisa Chapouto).</p>
	<p>Feedback on activity proposals to MA students: suggestions for revision of initial proposals and organization of small work teams of MA students to that effect.</p>
	<p>Recruitment of A1 level PFL learners.</p>
<p>April 2016</p>	<p>Revision of proposals and validation of final versions of activities.</p> <p>Course development and implementation in LS Moodle by the technical and pedagogical support team (Celeste Vieira, André Jerónimo and Inês Messias)</p>
	<p>Assignment of PFL learners to tutors (7 groups).</p>
	<p>Tutor training workshop by the technical and pedagogical support team.</p>
<p>May 2016</p>	<p>1st ed. of the online course.</p>
<p>June 2016</p>	<p>Participant satisfaction evaluation.</p>

During the Fall semester of the 2016-2017 school year, a new group of MA students was presented the E-LENGUA@UC action proposal and, specifically, the **PFL (A1)\_TL Lab**. The next module of the online course, focusing on written production skills, is currently being prepared with the following plan and chronogram:

Date/ Deadline	Task	Participants
6-12-2017	Meeting regarding the implementation of the E-LENGUA@UC Action Proposal: phase 1 and preparation of phase 2.	<ul style="list-style-type: none"> <li>E-LENGUA@UC coordinator</li> <li>technical and pedagogical support team (UC_D <a href="http://www.ed.uc.pt/educ/home">http://www.ed.uc.pt/educ/home</a>)</li> <li>members of the scientific and pedagogical supervision team (CELGA-ILTEC <a href="http://www.uc.pt/fluc">http://www.uc.pt/fluc</a>)</li> <li>MA students</li> <li>Technical and Academic Trainees from Heidelberg University and Bologna University</li> </ul>
30-1-2017	Submission of first drafts of instructional activities to the Scientific and pedagogical supervision team (CELGA-ILTEC).	MA students
7-2-2017	<i>Feedback</i> , with suggestions for revision, if necessary.	Scientific and pedagogical supervision team (CELGA-ILTEC)
14-2-2017	Submission of revised proposals to the Scientific and pedagogical supervision team (CELGA-ILTEC).	MA students
20-2-2017	Submission of revised proposals to the Technical and pedagogical support team.	E-LENGUA@UC coordinator
3-3-2017	Improvements and minor adjustments to the oral skills module.	<ul style="list-style-type: none"> <li>E-LENGUA@UC coordinator</li> <li>MA students</li> <li>Technical and pedagogical support team</li> </ul>
10-3-2017	Recruitment of PFL A1 level learners.	E-LENGUA@UC coordinator
17-3-2017	Technical and pedagogical training of MA students.	Technical and pedagogical support team
23-3-2017 a 28-4 2017	Course delivery	<ul style="list-style-type: none"> <li>E-LENGUA@UC coordinator</li> <li>MA students</li> <li>Technical and pedagogical support team</li> </ul>

## 5. Intellectual Outputs

The E-LENGUA@UC action proposal originated two major intellectual outputs, a PFL A1 online course and an Instructor-Learner Interaction Corpus, both developed as components of the **PFL (A1)\_TL Lab**.

### A1 PFL online course – Phase 1

In the Moodle platform, 4 tools were available for communication between learners and tutors: a general forum, messages, a tutors’ forum and the groups’ forums.



Figure 3: Communication tools



Figure 4: Home page A1 Portuguese online course  
<http://www.ucd.uc.pt/course/view.php?id=10>

The course presents learners with 10 activities (2 synchronous and 8 asynchronous) using different technology tools, and targeted at different language skills. The activities were organized in a structure consisting of 6 themes.

## Theme 1: Personal presentation

**1.1 Pre-task** - Self-monitorization of pronunciation using a text to speech software: SitePal (asynchronous, facultative). The learners were asked to rehearse WH questions (and typical answers) with alternative syntactic structures in Portuguese (asynchronous, facultative).



Figure 5: Activity 1.1

**1.2. Task** - Videoconference oral interaction between tutors and learners, in which they get to know each other (synchronous, mandatory).



Figure 6: Videoconference tools Colibri and Skype

**1.3 Post-task** – Submission of an audio or video file - the learner presents him or herself to the tutor, describing personal traits (asynchronous, facultative).

**Pós tarefa\_Video de apresentação**

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**PÓS TAREFA: Video de apresentação**

**[Instruções]**

Para completar esta atividade pode submeter em vídeo ou em áudio a sua apresentação pessoal.

- **Duração recomendada:** 2 minutos (no máximo);
- **Formato do ficheiro:** mp3 (no caso dos áudios) e mp4 (no caso dos vídeos).

**Ferramentas úteis (sugestões)**

Para a gravação de áudio pode utilizar o seu computador ou um telemóvel. Deve escolher um local calmo, sem ruído de fundo. Se o ficheiro produzido estiver noutro formato, pode fazer a conversão para o formato mp3 na página: <http://media.io/>.

No final, quando submeter o ficheiro na plataforma, deve verificar se está a funcionar corretamente (se é possível ver ou ouvir).

Figure 7: Activity 1.3

## Theme 2 | Description of people, animals and objects

**2.1 Descriptions of objects** - Oral comprehension task implemented as a multiple choice test. Questions are oral stimuli and the response options are presented as images (asynchronous, mandatory).



Figure 8: Activity 2.1

**2.2 "Who is who?"** – The game requires the construction of Yes/No questions (with the required intonation pattern) and it is played by the tutor and learner in a video conference (synchronous, mandatory).

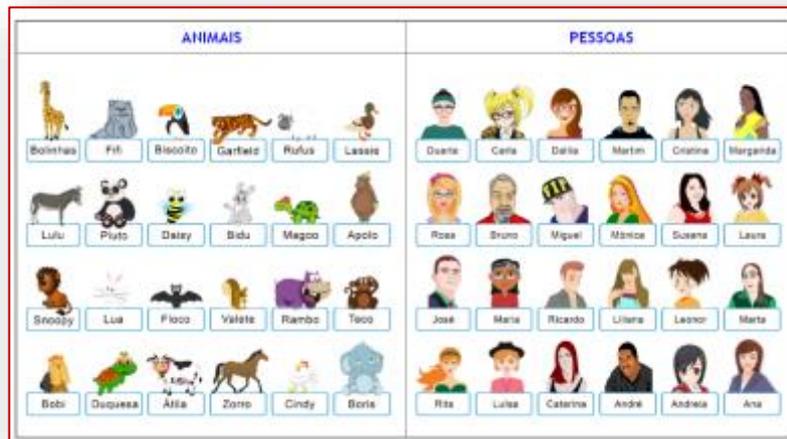


Figure 9: Activity 2.2

## Theme 3 | Family

**3.1 - Genealogical tree** - A genealogical tree with missing information and an audio file describing the relationships between family members are provided. Following the descriptions in the audio file, the learner has to fill in the spaces in the tree with the names of the missing family members. The task was implemented as a file submission activity (asynchronous, obligatory).

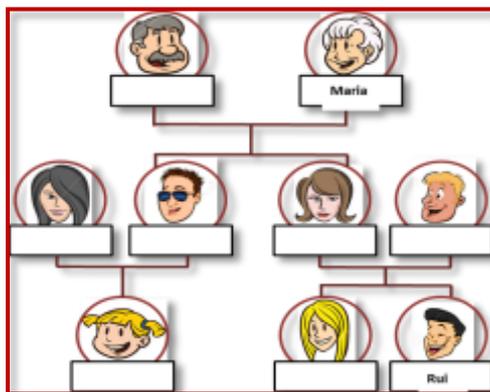


Figure 10: Activity 3.1

**3.2 – True or False** – After completion of activity 3.1., a true or false questionnaire is presented to the learner. Each item is an audio file that describes a correct or incorrect family relationship (asynchronous, mandatory).

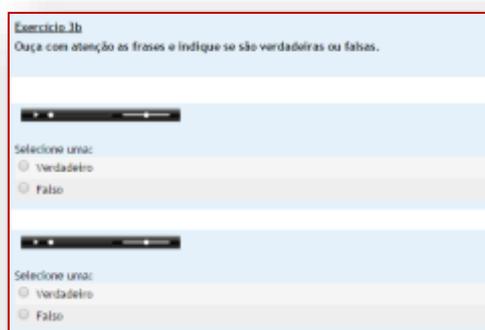


Figure 11: Activity 3.2

## Theme 4 | Food

**4.1 – «Pastéis de nata» Cooking Recipe** - Implemented as a multiple-choice test, the learner must first watch a video with audio to then answer questions regarding ingredients and cooking procedures. Response options are provided in written form (asynchronous, obligatory).



Figure 12: Activity 4.1

## Theme 5 | Shopping

**5.1 - Promotions** – Learners are presented with a card containing produce items and their prices. They are then asked to listen to an oral advertisement announcing promotions on some of the items (the information involves variable sizes, quantities and weights) and are subsequently required to answer a questionnaire implemented as an open (short) answer test (asynchronous, mandatory).



Figure 13: Activity 5.1

**5.2 Market Dialogue** - An oral comprehension exercise implemented as an open (short) response test. The learner listens to 9 randomized lines of dialogue between the customer Beatrice and a market seller. Each line of dialogue is available in an independent audio file and was recorded by the same person. The learner is required to put them into a logical and pragmatically adequate sequence (asynchronous, mandatory).

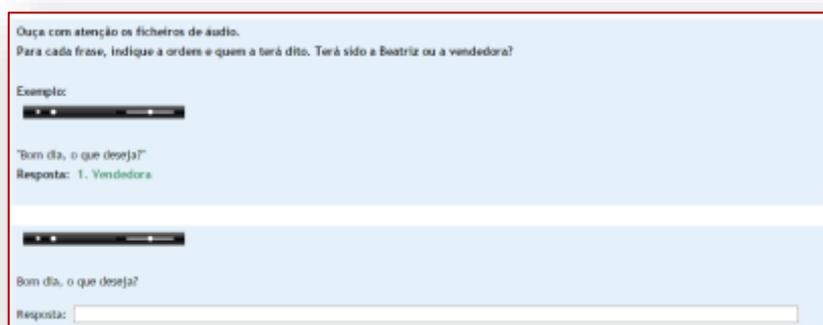


Figure 14: Activity 5.2

## Theme 6 | Public services

**6.1 – A day in Coimbra** - The learner is invited to put him or herself in the shoes of a tourist who will come, by train, from Oporto to spend a day visiting Coimbra. An unfinished travel plan is presented and the task consists in figuring out the missing details. The learner is guided in the task by a questionnaire about the details the visit. The answer to each question requires consulting a real website with information on,

for example, train schedules, taxi services, prices for visiting places of touristic interest, etc. After completing the questionnaire, the learner is asked to submit two files with the travel plan (audio and text).

Este é o plano previsto da sua visita a Coimbra.			
Horas	Atividade	Preço	Informações adicionais
7	Partida da estação de S. Bento em comboio para Coimbra universitária.	Preço: 0,00 bilhete: 1	Existem vários tipos de Comboios em Portugal. O mais rápido e mais caro é o Alfa Pendular (AP). Os InterCity (IC) são comboios ligeiros e com uma melhor relação-qualidade-preço. O comboio regional (R) é mais barato, mas mais lento, porque para em várias estações de pequenas localidades.
09.17	Chegada à estação de Coimbra - B		
10.05	Partida de taxi para a U.C.	Preço: 4,00€	
10.20	Chegada à U.C.		
7	Visita à torre da Universidade	Preço: 1	
11:00h	Visita guiada ao Pólo da História, Biblioteca, Assembleia do Conselho de Regentes e do Próprio Académico, Capela de São Miguel, Sala dos Capelos, Sala de Exames Privados e Sala dos Armas.	Preço: 1	

Figure 15: Activity 6.1

Upon completion of each activity, feedback was provided to each of the learners. Immediate and automatic feedback was given after the completion of multiple choice and true/false questionnaires by the Moodle platform. Tutors were required to validate answers to questions in open response tests and also gave written feedback to learners in the case of the activities involving file submission. Direct oral interaction between tutors and learners occurred in the context of the synchronous activities. A sample of these (one per group) were video-audio recorded and are the basis of the Instructor-Learner Interaction Corpus in progress.

After the course, all participants were asked to fill out a satisfaction questionnaire. Out of the 41 Erasmus students who participated in the course, only one responded, exhibiting a high level of satisfaction and offering a few suggestions.

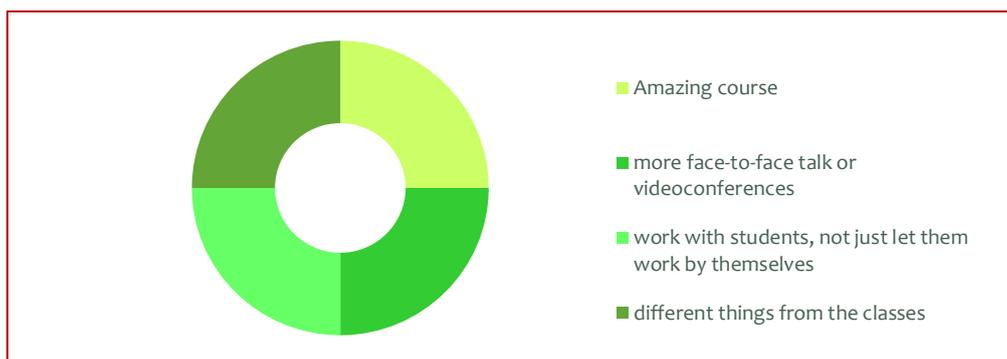


Figure 16: Erasmus student comments and suggestions (post-course)

Out of the 15 MA students who participated in phase 1 of the online course, 11 answered the satisfaction questionnaire, offering their feedback as to how to improve the course. Suggestions fall under several categories: group activities (1 comment), e-tutor role (6), student participation (4), experience in the project (7), course chronogram (4), course activities (11), synchronous sessions (5) and the Moodle platform (10).

## 6. Dissemination

Web site: <http://celga.iltec.pt/projects/elengua.html>

### Internal dissemination through institutional partners:

- MA Program in Portuguese as a Second and Foreign Language
- Portuguese as a Foreign Language Language Courses (Erasmus branch) (FLUC)
- CELGA-ILTEC (Applied Linguistics R&D center)
- UC\_D (UC E-learning unit)

### External dissemination

- Presentation of the E-LENGUA@UC action proposal included in a talk delivered at Eduardo Mondlane University (Maputo, Mozambique) by Cristina Martins (April 13, 2016).
- Oral presentation at the *IV Jornadas de PLE* by Cristina Martins, Celeste Vieira, Inês Messias & André Jerónimo - E-LENGUA@UC: a construção de um laboratório de ensino de PLE *online*, (December 10, 2016): [http://celga.iltec.pt/Images/events/Programa\\_Jornadas\\_PLE.pdf](http://celga.iltec.pt/Images/events/Programa_Jornadas_PLE.pdf)
- Poster E-lengua@UC presented at El@IES Coimbra 2016 by Cristina Martins, Celeste Vieira, Inês Messias & André Jerónimo (December 16, 2016): <http://www.ed.uc.pt/elies/>

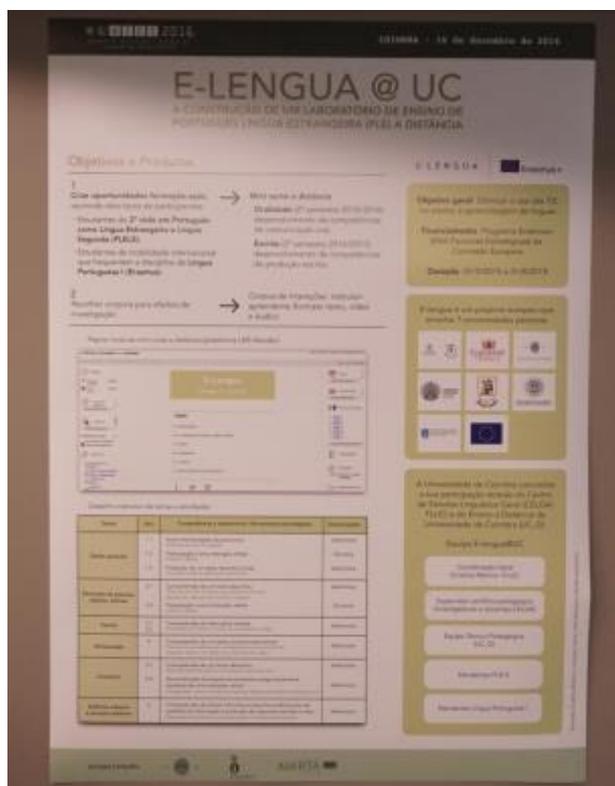


Figure 17: Poster E-Lengua@UC - El@IES 2016 Coimbra, Portugal



Figure 18: Collection of Posters - EL@IES Coimbra 2016

### UC E-LENGUA trainee program (December 6-10, 2016)

- disseminated by email to FLUC faculty members, and can also be found here: [http://celga.iltec.pt/Images/E-LENGUA\\_UC\\_program.pdf](http://celga.iltec.pt/Images/E-LENGUA_UC_program.pdf)
- press release: [http://noticias.uc.pt/universo-uc/fluc-recebe-visita-de-professores-estrangeiros-no-ambito-de-projeto-europeu/?utm\\_source=dlvr.it](http://noticias.uc.pt/universo-uc/fluc-recebe-visita-de-professores-estrangeiros-no-ambito-de-projeto-europeu/?utm_source=dlvr.it)

### 7. Bibliography:

Elango R., Gudep V. K., & Selvam M. (2008). Quality of e-Learning: An Analysis Based on e-Learners' Perception of e-Learning. *The Electronic Journal of e-Learning*, 6(1), 31-44. Retrieved December 29, 2016, from [www.ejel.org/issue/download.html?idArticle=58](http://www.ejel.org/issue/download.html?idArticle=58)

Ellis, R. (2005) Principles of instructed language learning. *System*, 33: 209-224.

Fauquet, M. & Strasfogel S. (1974) L'audio-visuel au service de la formation des enseignants. Le circuit fermé de télévision. *Revue française de pédagogie*, 27 (1): 66-70. Retrieved December 29, 2016, from [http://www.persee.fr/doc/rfp\\_0556-7807\\_1974\\_num\\_27\\_1\\_2063\\_t1\\_0066\\_0000\\_2](http://www.persee.fr/doc/rfp_0556-7807_1974_num_27_1_2063_t1_0066_0000_2)

Gonçalves, M. (2008). *O perfil do professor/tutor em cursos online*. Dissertação de Mestrado em Ciências da Educação: Universidade Aberta. Retrieved December 29, 2016, from <http://repositorioaberto.uab.pt/handle/10400.2/682>

Lemos, S., Neuza, P., & Matos, J. F. (2010, Nov.). Tecnologias e E-learning no Ensino Superior: uma proposta de modelo pedagógico. Paper presented at the *VI Congresso Iberoamericano de Docencia Univercitária of Pontificia Universidad Católica del Perú*, Lima, Perú.

Long, M. H. (2011) Methodological Principles for Language Teaching. In M. H. Long & C. J. Doughty (eds.) *The Handbook of Language Teaching*. Malden: Blackwell, p. 373-394.

Merrill, D. (2002). *First principles of instruction*. In *Educational Technology Research and Development*, 50(3).

McLuhan, M. (1964). *Understanding Media: The Extensions of Man*. New York: McGraw-Hill.

Miranda, G. (2009). *Concepção de Conteúdos e Cursos Online*. In *Ensino Online e Aprendizagem Multimédia*. Organização de Guilhermina Miranda. Lisboa: Relógio D'Água Editores.

The Economist Intelligence Unit (2008). *The future of Higher Education: How technology will shape learning* (Report sponsored by the New Media Consortium). Retrieved December 29, 2016, from <http://www.nmc.org/pdf/Future-of-Higher-Ed-%28NMC%29.pdf>

Tinto, V. (2003). *Learning better together: the impact of learning communities on student success*. Syracuse University. Retrieved December 29, 2016, from <http://faculty.soe.syr.edu/vtinto/Files/Learning%20Better%20%Together.pdf>

Salmon, G. & González, F. (2002). *La función y formación del e-moderator. Clave del éxito en los nuevos entornos de aprendizaje*. United Kingdom: The Open University.

Tinto, V. (2003). Learning Better Together: The Impact of Learning Communities on Student Success. In *Promoting Student Success in College, Higher Education Monograph Series* (pp. 1-8). Syracuse, NY: Syracuse University. Retrieved December 29, 2016, from [https://www.sdbor.edu/administrative-offices/student-affairs/sac/Documents/LearningBetterTogether\\_Tinto.pdf](https://www.sdbor.edu/administrative-offices/student-affairs/sac/Documents/LearningBetterTogether_Tinto.pdf)

Coimbra, December 30, 2016

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