

Is LAMS an efficient second language teaching and learning tool?

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The development of blended and e-learning is pushing researchers to explore new technologies and their scope for well-defined didactic contexts. The goal is to allow learning designers to ascertain whether the technology deserves to be used, after an accurate evaluation of its strengths and weaknesses. This paper reports an experiment conducted at the University of Genoa (Italy) in 2013, in which I designed, ran, monitored and evaluated a Spanish course for Italian students on LAMS. In the following paragraphs, I will report its results basing my conclusions on my direct observations and traits detected in students' behaviours throughout the experience.

Keywords: LAMS, L2 learning and teaching, CALL, Self-Regulated Learning, educational data mining, Design-Based Research, inter-linguistic similarity

Aim of the study and literature review

The goal of this study is to investigate the potential of LAMS (Learning Activity Management System) as a tool to enhance second language strategic learning and teaching processes. LAMS has proved in the past to be useful in providing an effective e-learning environment for both teachers and students: the highly visual authoring tools help teachers to design effective lesson plans and transform them quickly into ready-to-use e-learning sequences (Cameron and Gotlieb, 2009), which can be easily shared and re-used later. LAMS also seems to foster students' autonomy and motivation (Holgado Sáez, 2011).

LAMS has been used to support learning and teaching in several fields, including Medicine (Baskett, 2011; Dalziel and Dalziel, 2011), Genetics (Dennis, 2011), Geography, Biology (Katsenos and Papadakis, 2011), law (Ríos Corbacho, 2012) and History (Dobozy, 2011), often while training future teachers (Dennis, 2009; Dobozy, 2009), i.e. exploring LAMS more as a learning design tool rather than just for its potential as a learning platform (Lams Community 2006).

Some years ago, Alexander (2009) provided “examples of how LAMS *might be used* to practise [...] language skills” (p. 69, italics added), proposing excellent ideas to design language courses in the LAMS environment. However, until now, just a few contributions have explored the use of LAMS as a CALL (Computer Assisted Language Learning) tool, and reported positive experiences teaching German (Holgado Sáez, 2010 and 2011), English (Brenes Castaño et al., 2011; Burns, 2008) and Korean (Lim et al., 2011; Campbell et al., 2012).

One of the aims of this design-based research is to report noteworthy facts, both positive and negative, I found during the processes of design, implementation and use of a LAMS (v. 2.4) Spanish course for Italian students. I gathered data from teachers' feedback and integrated it with log data (which gave information about students' actions) and with students' answers to a post-course questionnaire. Aside from sharing useful information to language learning designers and teachers, this paper could point out some possible future software developments.

Methodological framework

CALL is the study of the application of ICTs in language teaching and learning (Levy, 1997; Beatty, 2010), either with the focus on language skills (Levy, 2009) or, as Alexander (2009) did, with a software as the point of reference: does LAMS support effective language courses? Which activities are possible? Is it worth designing a language course using this platform? One risk – as pointed out by Porcelli (2004) – is to focus too much on technology, using state-of-the-art softwares to teach a language with obsolete methodology.

It is evident, therefore, that an evaluation of CALL potential of software such as LAMS has to be inserted into a well-defined teaching situation, so that results can be understood and evaluated in their relationship with a specific context. This explains why I chose a Design-Based Research methodology (Figure 1), whose goal is to evaluate *in situ* the didactic intervention and establish whether, when and why it had a positive impact on the learning process (Anderson and Shattuck, 2012; Collins et al., 2004). The description of the design, implementation and evaluation phases allows researchers to judge the validity and the pertinence of the intervention, as well as its transferability to other contexts.

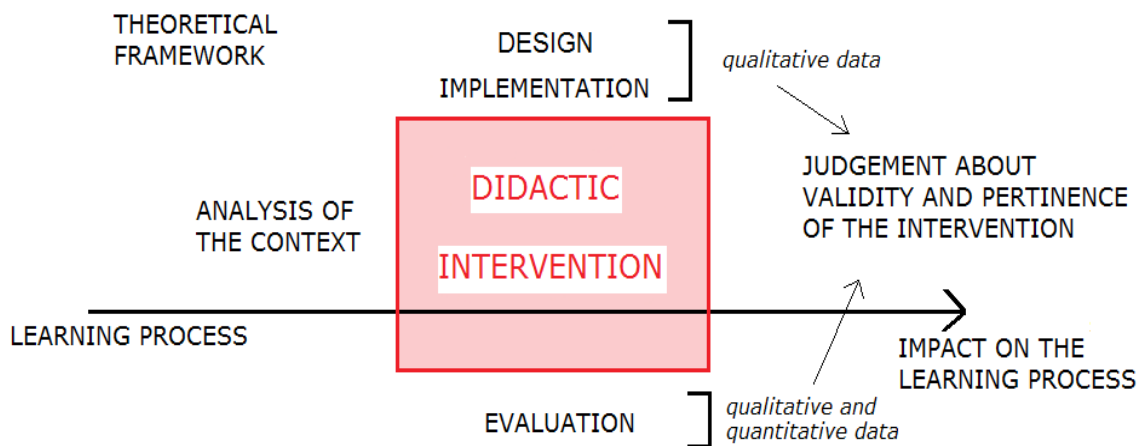


Figure 1: Methodological framework

Theoretical framework

None of the contributions about LAMS listed above has proposed a language course in which L2 (the language studied) and L1 (the mother tongue) were similar. Since this study reports the evaluation of an ELE (Español Lengua Extranjera, Spanish as a foreign language) LAMS course destined for Italian university students, it is important to briefly analyse the distinctive traits involved in a L2 course when in presence of a strong inter-linguistic similarity, such as for Spanish and Italian.

These two languages have a large number of Latin roots and grammatical constructions in common: nevertheless, “differences come up in a subtle way even in the most apparently similar levels and this becomes evident where the diversity – due to the use of resources existing just in one of the two languages – is complete” (Carrera Díaz, 2007: 249).

If L2 and L1 are similar, a particular teaching methodology is recommended (Calvi 1995): teachers have to promote the acquisition of specific learning strategies. These techniques aim to exploit the similarities between the two languages (*positive transfers*) and avoid *negative transfers*, help students recognise when it is possible to lean on L1 to understand and produce sentences in L2 or in other languages (*transferability*) and how to set the value of the distance between L1 and L2 in each linguistic sub-field, from phonetics to pragmatics (*learner's psychotypology*, Kellerman 1983, p. 116). Within this perspective, language learning comes to be a process in which students organise actively their inter-linguistic systems often resorting to their mother tongue – this is evident for Italians who study Spanish as well as for Dutchmen who study German.

This framework suggests the special importance of metacognitive thinking during language learning, particularly in presence of inter-linguistic similarity, in which there are a lot of processes at stake: intra-linguistic (within L2) learning processes, the inter-linguistic (L1-L2) processes cited above, in addition to a growing understanding of the mother tongue.

In this context my hypothesis, based on the works of Holgado Sáez (2011) and Kordaki (2010), was that the structure of the LAMS interface would foster students' metacognitive strategies, ultimately facilitating the whole language learning process. As a theoretical wrapper to measure such strategies, I

used the literature about Self-Regulated Learning (SRL), intended as the set of processes students use to plan, manage and monitor their learning. The activation of SRL strategies, which is often correlated with high academic achievement, implies the regulation of cognitive, behavioral, emotional and motivational aspects of the learning process while performing a task (Zimmerman, 1989, Delfino et al., 2009).

Literature (Zimmerman, 2002; Oxford, 2011; Moos and Azevedo, 2008; Narciss et al., 2007) usually distributes self-regulated processes into three consecutive phases:

1. a *forethought phase*, in which the student analyses the task, judges its utility, sets the goals, activates prior knowledge and, ultimately, decides how to behave. One example of strategy in this field is that of analysing task features and context in order to understand what to do, which resources should be used, which linguistic register best fits the situation, etc.
2. an *execution phase*, in which the student actually performs the task and activates the strategies. In this phase students often like to create mnemonics such as mind-maps, tables, annotations and summaries to better retain what they are learning;
3. a *self-reflection phase*, in which the student evaluates his/her actions and tries to understand the causes of success and failure (Weiner, 1985).

A large part of the processes listed above is invisible to the researcher. How can one be sure of the activation of a SRL strategy? Are there special measurements for SRL within e-learning environments? Measurements can be made by the student him/herself or by an external observer (i.e. the researcher). Self-reports allow the researcher to seek invisible cognitive processes, but their interpretation is often uncertain. Multiple choice questionnaires could represent a better solution provided that the student can answer immediately after the task, when he/she still remembers the strategies used. There are also unobtrusive SRL measurements, specifically suitable to e-learning contexts: these techniques require the analysis *a posteriori* of the tracks left in the learning environment. E-learning platforms like LAMS record in a document (log file) all information sent and received from students: the analysis of this information is called educational data mining (Romero and Ventura, 2010), and it is listed as one of the most powerful ways to measure SRL in e-learning environments (Oxford, 2011), although this field is partially still to be explored (Johnson *et al.*, 2014). However, it is not easy to identify the performance of self-regulated behaviors within a platform, primarily because the log files record just a subset (e.g. visit a page, answer a quiz, listen to an audio file) of students' actions. As a consequence, the researcher simply *suggests* an interpretation of the action recorded by the log file: then, it is strongly recommended to triangulate such information with other types of measurement, like questionnaires, interviews, self-reports, diaries, etc.

Research questions

This study investigated the potential of LAMS as a L2 strategic learning and teaching tool. The data has been collected throughout the processes of design, implementation and monitoring of an ELE LAMS course, whose context and features will be described in the next section. Considering a double perspective (from both teachers and students' point of view) has led me to identify two research perspectives:

Designer perspective (qualitative data): the account of the didactic process, from the design phase to the implementation and monitoring phases.

I participated in the ELE course as the only learning designer and monitor, so I could report LAMS strengths, but I also had to face several hurdles which allowed me to identify some minor weaknesses, about which I informed the LAMS Community (2014) developers. The activities I am focusing on here are just a subset of the wide variety LAMS could offer for a language course.

<i>Research question</i>	<i>Theoretical framework</i>	<i>Data collection</i>
Which are the strengths and the weaknesses of LAMS as a tool for designing, implementing and monitoring an ELE course for Italian students?	(Language) learning design, foreign language (with inter-linguistic similarity) teaching	Account of the personal experience as course designer and monitor (qualitative data)

Student perspective (quantitative and qualitative data): the perspective of a (self-regulated) learner.

An e-learning student has to learn in an effective and efficient way, and should maintain high levels of motivation, orient him or herself, take advantage of the platform features, etc. Broadly speaking, this depends on three types of elements: those related to the student's profile (learning styles, strategies used, motivation, etc.), the features of the didactic material (as pointed out by Ausubel, 2002) and the platform features: usability, simplicity, the opportunity to interact with materials, tutors, peers and teachers.

In an attempt to capture this set of factors, I used the SRL framework: a self-regulated student is the one who best adjust his/her learning methodology to the context, and takes advantage of the affordances of the learning environment to get better results. Hence, the goal of this second strand was to analyse students' actions in terms of activation of SRL strategies during their participation in the ELE course on LAMS. This part of the research has been conducted by analysing the log files, the post-course questionnaires and the communication between the students and the tutor (through forum and personal e-mails) during the course.

<i>Research question</i>	<i>Theoretical framework</i>	<i>Data collection</i>
Did the students activate SRL strategies? Did they exploit LAMS features? Did they feel comfortable?	Self-Regulated Learning, Educational Data Mining	Log files analysis (quantitative data), questionnaires (both qualitative and quantitative data), LAMS forum, e-mail (qualitative data).

Experimentation

Context and participants

Students enrolled on a first degree in “Modern Languages and Cultures” or “Educational Sciences” at University of Genoa (Italy) can opt for face-to-face ELE classes, which lead them to B1 level (cf. Council of Europe 2011) during their first year.

Most of the University staff use a Moodle-based e-learning platform to integrate classroom hours with extra activities, where students can improve their own communicative competences outside the lessons. However, students are often asked to visit other websites or given out-of-context grammar exercises: teachers rarely have time and skills to design well structured blended learning paths.

My ELE course on LAMS was intended to support these students, providing them with an innovative learning environment with engaging language learning activities. The goal of the course, running from March to October 2013 with twenty-three participants, was to help students develop their communicative skills concerning expression and comprehension of past events using the indicative mood.

As the literature clearly points out (Musto, 2010; Sánchez Montero, 2001; De Hériz, 2012; Martínez-Atienza, 2012a and 2012b; Squartini and Bertinetto, 2000; Lombardini, 2001), the study of indicative past tenses in Spanish by Italian students is especially recommended to foster inter-linguistic comparisons, in both morphological and usage fields.

The syllabus was based on the one proposed by the *Instituto Cervantes* (2013a; 2013b) referred to A1, A2 and B1 levels. In these low-intermediate levels of language learning, it is especially important for students to develop metacognitive strategies, which will be effortlessly assimilated at higher levels (Oxford, 2011). The particular choice of this kind of participants, also, would have confirmed or rejected Burns' (2008, p. 10) claims “These findings suggest that LAMS can be used successfully with *lower level* students” (*italics added*).

Features of the design

The course title was “El delito de la habitación cerrada” since most activities were based on a Spanish adaptation of “The adventure of the sealed room”, a detective short story written in 1952 by Adrian Conan Doyle (Sir Arthur's son) and John Dickson Carr (Conan Doyle and Dickson Carr, 1990). I deliberately chose a detective story as the leitmotif of the whole sequence in order to motivate the

students to take the whole course up to the final activities, in which the students had to choose who the murderer was, explain why (the readers knew the same details as the detective, so they could investigate on equal terms) and, eventually, check their answers.

The course had no collaborative activities, and the students progressed through it at their own pace, without constraints or rewards: enrollment and participation were fully voluntary, and would give them no extra points for their university marks. The choice to propose a self-learning course, although not in accordance with most of LAMS literature and philosophy, was imposed by several factors:

- the heterogeneity of the participants: although they all started the course with an A2 level of Spanish (they had to complete a placement test before the enrollment), I expected “Modern Languages” students to be more motivated than the “Educational Sciences” ones: the former being in their first Spanish learning year out of three (or five), while the latter having Spanish as an optional exam to pass;
- the complete freedom they had in enrolling and actually participating in the course;
- literature (see the debate arisen from Kirschner et al., 2006) suggests that non-expert students should be provided with guided and well-structured learning paths. This is important in the language learning field, where knowledge to be acquired is (at least in the first levels) determinable in an objective way, i.e. teachers can establish *a priori* which competences students have to develop and which knowledge they will need (Jonassen, 1991). In e-learning contexts, this need is increased by the physical absence of the teacher;
- it would be interesting to see whether LAMS features would help students to self regulate their learning.

Therefore, I designed a pre-determined sequence of individual activities: access to every new activity was therefore granted upon completion of the previous one. Thanks to this structure, I could identify (and, in some cases, create from scratch) some correspondences between the detective story and the language-focussed activities. For example, I added some parts to the first chapter of the story (which gives the reader contextual information); my aim was to allow students to exploit these in the following activity, concerning how to talk about the contexts in which an event occurred. Without this strict guidance, the interaction between chapters and linguistic activities would have not been so effective, ultimately causing confusion and disorientation.

Throughout the sequence, I also arranged several points at which the student could customize his/her learning path on the base of conscious SRL choices: for example, they could choose between two different learning strategies they had already had the opportunity to test. This freedom would have been important when monitoring SRL strategies: since the self-regulated student is the one who manages actively his/her own actions in order to learn productively and with more awareness, it is evident that he/she has to have the freedom to choose among different strategies to use. “When all aspects of a task are predetermined students may learn, but the source of control is external” (Schunk 2001: 126) and, therefore, the student is not self-regulating his/her learning.

Results

I designed mostly reading and listening comprehension assignments for two main reasons: firstly, these activities do not need immediate teacher feedback (so that students could continue in the sequence without waiting); secondly, these do not require students to possess microphone devices. The complete sequence had between 70 and 80 activities; in this paper I will just show some parts of my design, along with some reflections on how to implement such activities in LAMS (the designer perspective) and how the students have used them (the students' perspective). Some of the activities shown below are specific to language courses, but others can be implemented in any learning field.

Glossary

Designer perspective

During the course, the opportunity to quickly check the meaning of lexical items without having to exit the platform is a big strength of a language course. LAMS does not have a glossary tool: by now, the best way to set it up is to create html files, one for each item, and upload them to the server. Then, using the

text editor, the teacher has to link manually every file with the corresponding lexical element. This operation seems inconvenient, but it does not take a long time.

Unfortunately, this solution does not encourage students to collaboratively create a glossary: teamwork can be prompted using the LAMS Share Resources tool as recommended by Alexander (2009), although his solution does not link directly the words of a text or exercise with the correspondent glossary items.

Student perspective

On the learner's interface, each hyperlinked word appears highlighted in green: a click opens a pop-up window which shows the html file (Figure 2). It is possible to monitor every access to the glossary items analyzing log files. These data, collated with post-course questionnaires, can be examined to improve future course setups. A high number of clicks on an item potentially shows one of the following strategies employed by the students:

- they clicked on the phrase to find out the meaning, because they did not know it;
- with the help of contextual information, they had already hypothesized the meaning of the expression, and clicked on the link just to confirm or refute their hypothesis.

The activation of the former strategy suggests that the expression is too difficult for the students' level, although its use in a meaningful context can help them incorporate it into their lexical baggage. On the other hand, if confirmed by the post-course questionnaire, the latter strategy would be a clue of excellent students' reasoning and learning. If the pop-up definition validates the student's hypothesis, we could argue that the expression is, in Krashen's (1987) terms, a “comprehensible input”.

The screenshot shows the LAMS interface with a text document on the right. A word, 'taller', is highlighted in green. A pop-up window is open over the text, displaying the definition of 'MÁSCARA' and an image of a skull. The text in the background includes a dialogue between characters named MARTÍN and INÉS, discussing a family and a hobby of collecting masks.

Figure 2: A glossary item

Grammar

Designer perspective

In language learning it is often important to foster students' metalinguistic reflections, which can lead to effective information storage. For example, it could be useful to guide L2 English students to recognize that verbs *say* and *lay*, as well as *sing* and *ring*, share the same verbal paradigms.

This analysis is even more important in the presence of inter-linguistic similarity, as for Italian and Spanish, where the difference between the two languages is often to be found in their parallel evolution from the common Latin basis; reflecting on this evolution can be an excellent means to guide students to find regularity into irregularity (Lombardini 2001), both within L2 and in comparison with L1.

This can be done deductively (the teacher gives students a grammar rule, and then lets them practice with tests) or inductively (the teacher guides students to discover the rule through examples). In my sequence about Spanish past tenses, after letting the students experiment with the two teaching styles, I allowed them to choose the learning path they preferred using the Optional Sequences Tool (Figure 3).

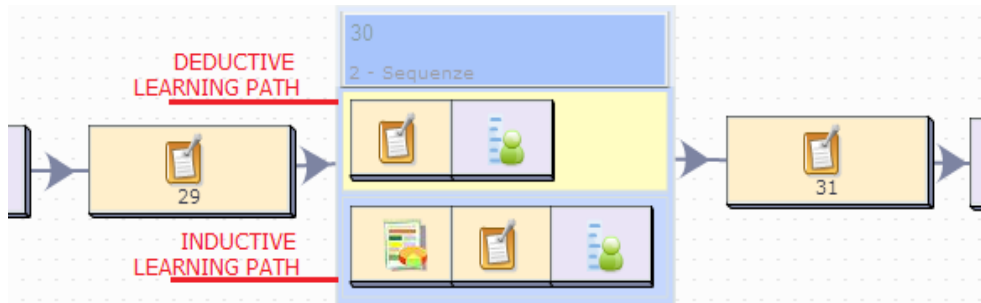


Figure 3: Two learning paths for the grammar activities

With *deductive* teaching styles, the teacher presents the information and then checks students' comprehension and application of the rules through practice. Two of the most common and simple ways to do this are multiple choice and gap-fill tests: while the former is part of the Assessment activity in LAMS, currently the latter is not yet supported. Pending developments, the best way to realise this, seems to be by using “Short Answer” questions into an Assessment Activity (Figure 4).

2 Julio, ¿adónde (2) _____ (ir) ayer tan elegante? (3) _____ (ir) a una fiesta.
(2)

3 (3)

Figure 4: Gap-fill exercise

The result is not aesthetically pleasing because students cannot insert their answer directly into the sentence, but it allows preservation of the real strength of this kind of exercise, i.e. the automatic feedback (Levy 2009: 770; Figure 5), which is essential for e-learning self-paced courses.

Tests like the one above are often seen as an aggravation by language learning researchers (Warschauer and Healey, 1998). Presently foreign language teaching is mainly oriented towards communicative methodologies, but it is complemented by elements from other orientations (cf. reflections by Lightbown and Spada, 1999): this is especially evident when L1 and L2 are similar (Calvi, 1995).

The features of a LAMS assessment cannot be changed once the first student has accessed it. This means that if the teacher realises he/she has made a mistake (for example, a typo), this cannot be amended. When a student of the ELE course in analysis found a mistake in two of the forty activities with automatic feedback, I only could flag it with a post in the Forum (which was inserted into a “Support Activity” box, i.e. always accessible by the students).

2 Julio, ¿adónde (2) _____ (ir) ayer tan elegante? (3) _____ (ir) a una fiesta.
(2)

✓

Nota: 1/1

3 (3)

✗

La respuesta correcta era: **Iba**

Nota: 0/1

Figure 5: Automatic feedback in gap-fill exercises

On the other hand, the goal of *inductive* teaching styles is to allow students to put forward a hypothesis (e.g. about the functioning of a grammar rule, the choice of the correct lexical item, etc.) and then test it immediately. For example, in the sequence I designed my goal was to help the students to identify some irregular simple past forms in Spanish: they could find them in a meaningful context – i.e. the chapters of the detective story - and then place them into a table according to their morphological features and their similarity with correspondent Italian forms. This test has been implemented using the Spreadsheet tool (Figure 6), which allows teachers and students to organize data in tabular form.

30A1 - Tabella participi

Completa la tabla escribiendo el participio de cada verbo en la columna adecuada:

columna A: participios que son parecidos o iguales a los italianos:
escribir => escrito
Otros verbos: romper, ver, prever

columna B: participios que diptongan:
abrir => abierto
Otros verbos: morir, poner, absolver, volver, cubrir, devolver

columna C: participios en -CH- (en italiano hay -TT-):
hacer => hecho
Otros verbos: decir, satisfacer

columna D: participios regulares en español (-ido) y irregulares en italiano
corregir => corregido; leer => leído
Otros verbos: meter, sufrir, ofrecer, traducir, producir, nacer, correr, decidir, ser

	A	B	C	D	E	F	G
1	escrito	abierto	hecho	corregido			
2	roto			leído			
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							

Figure 6: A grammar test with the Spreadsheet tool

In this case, it would have been quite interesting to have other options available, such as a drag-and-drop feature (Figure 7). This would have strengthened, among the learners, the association between the verbal category and the verbal forms dropping each item into the correct position within a table.

Completa la tabla poniendo cada verbo en la columna adecuada:

- columna A: verbos con participio parecido o igual al italiano
- columna B: verbos con participio que diptonga
- columna C: verbos con participio en -CH- (en italiano hay -TT)
- columna D: verbos con participio regular en español (-ido) pero irregular en italiano

<i>hacer</i>	<i>satisfacer</i>	<i>escribir</i>
<i>abrir</i>	<i>volver</i>	<i>nacer</i>
<i>morir</i>	<i>sufrir</i>	<i>correr</i>
<i>decir</i>	<i>obedecer</i>	<i>ver</i>
<i>corregir</i>	<i>cubrir</i>	<i>decidir</i>
<i>poner</i>	<i>traducir</i>	<i>prever</i>
<i>meter</i>	<i>devolver</i>	
<i>leer</i>	<i>producir</i>	
	<i>ser</i>	

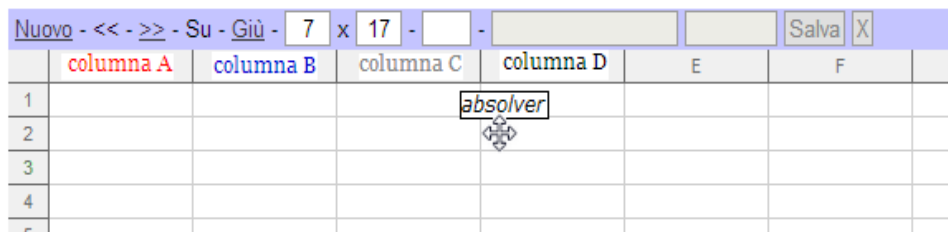


Figure 7: How a drag-and-drop feature could appear

The spreadsheet needs to be marked manually. The designer can insert a gate after the activity, and monitors should open it once the student(s) has completed the test. I chose to leave my students free to go through the sequence at their own pace, therefore I placed no gates after that specific activity. I just allowed them to see, in a following activity, the possible solutions to the question.

Student perspective

None of the students complained about the gap-fill tests produced with short answer questions. On the other hand, post-course questionnaires show that students had problems with estimating tests' scores: apparently, my warning post in the forum was not enough, and they felt disorientated because they did not understand the automatically generated feedback in the two tests where the misspellings were found. For long sequences like the one I designed, it would be extremely useful to allow teachers to edit the activities in due course.

As regards to the spreadsheet tool, as expected, a couple of students skipped a step of the sequence without completing the previous activity. As stated above, this could have been avoided by placing a gate at the end of the activity, but I preferred to leave students the advantage to set their own pace. However, students who completed the table probably activated high quality learning processes: log analysis shows that they went back to previous activities to find out some verbal forms and to put forward hypothesis about the morphological features of the ones the exercise proposed.

Journal

Designer perspective

Every student of the ELE course could also access a notebook space for personal annotations. I placed it, along with the forum, outside the sequence, in a "support activity" box (Figure 8), in order to allow student to enter, read and write down things when they needed to.

The choice to insert a space for a journal was motivated by the course features and by the complete access freedom permitted to students. Given the heterogeneity of the materials (in which the chapters of the

detective story alternated with grammar-focused activities) and their length, the journal could have been a powerful tool to store important information (Mayer and Moreno, 2003; Winne, 2001).

Student perspective

The access to the journal, combined with its content, can be seen as a clue of the activation of trans-disciplinary self-regulated learning strategies, such as rehearsal, annotations, schemata, mind-maps, etc. Some responses from a post-course questionnaire indicate that approximately one-third of the participants preferred to use an off-line tool like a paper notepad instead of the LAMS Journal. The students who used the latter, however, took note of some unknown lexical items, expressed opinions about the utility and the complexity of the activities, and wrote out some details about the crime scene.

Among the 23 students enrolled, only two used the “scratch pad” (the small “Blocco note” in the bottom-left corner of Figure 8). Despite its permanent visibility, the students preferred to open and edit the bigger Notebook.

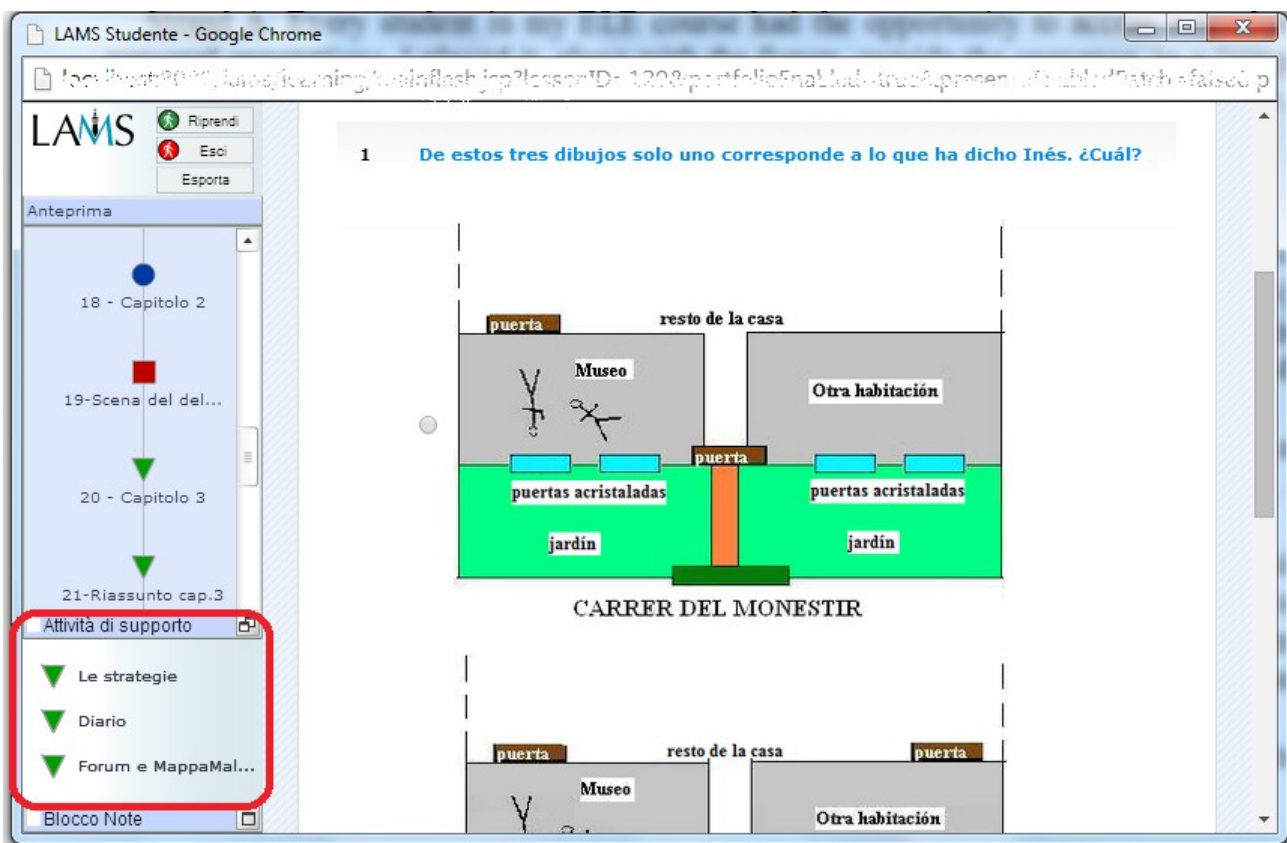


Figure 8: The Journal tool (“Diario”) was permanently displayed in the Support Activity box during the performance of the sequence

The “Marauder’s Map” in LAMS

Designer perspective

The “Marauder’s Map” is one of the most fascinating Harry Potter’s magic objects (Rowling, 1999): it is a map which shows the real-time position of some characters within the Hogwarts castle. As Lam and colleagues did in a previous paper (Lam et al., 2007), I use this expression to indicate the LAMS Monitor screen (Figure 9) in which tutors can pan over the sequence and check the position of every student in real-time, who is indicated by a small white body shape placed into the last activity he or she has visited.

Only users with monitor rights can access the “Map” and check at a glance if students proceed with fluency within the sequence. For example, if many students are stuck in an activity (i.e. if the Map shows an overcrowded box) probably there is a wrong setting which blocks the access to other activities, or that activity is particularly difficult or interesting.



Figure 9: Monitor view of the “Marauder's Map”

While designing the sequence, I considered the opportunity to give students monitor rights to view the Map: it would have been a powerful self-monitoring tool and, moreover, it would have fostered a moderate competitiveness, increasing the motivation. However, allowing students to monitor their progress would have produced several setbacks: firstly, it would have been necessary to explain students how to view the Map. I believe this step would have not been essential to an ELE course and would have probably confused students, rather than accustoming them to self-regulation. Secondly, as monitors, students would also have had the opportunity to delete the entire sequence.

I chose a compromise: I allowed students to access the Map without giving them monitor rights. I could not generate Map screenshots and post them in the forum activity, because the Map shows just one username at a time. Finally, I decided to create from scratch a new html page in which every student could find his/her ID (Figure 10). I posted in the forum a link to this page, which I manually updated every day.

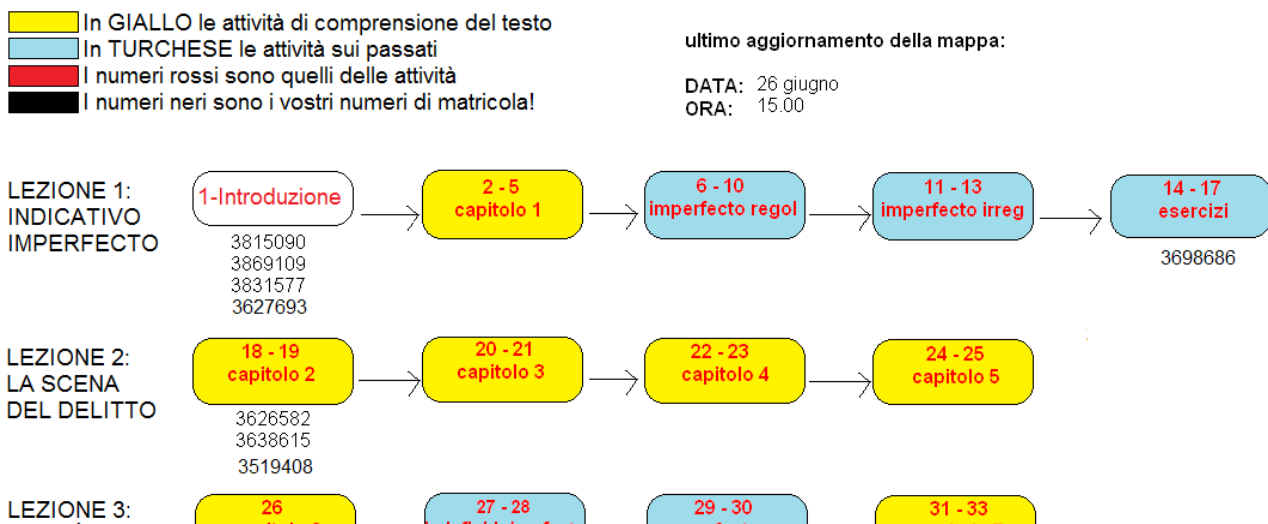


Figure 10: Student view of the Marauder's Map in my sequence

Student perspective

Log analysis and post-course questionnaires showed a moderate interest in the Map, which was accessed by students as a tool to check their learning path and, as expected, to check the position of the colleagues. This suggests that, for some courses, it might be useful to make the Map available to students, too.

Task list

Designer perspective

One of the goals of this research was to see by to what degree LAMS would foster metacognitive thinking – which is, as remarked, especially important in e-learning language courses like the one I designed. For this purpose, I periodically used the task list tool to exhort the students to revise the sequence and identify some problems in their learning experience: they had to tick an item of the list (e.g. a chapter of the story, the use of a verbal tense, etc.) to confirm they had not had any problem with that element (Figure 11). However, the access to the following activity was not dependent on the selection of all list items: I was rather interested in monitoring their actions.

The screenshot shows the LAMS Student interface in Google Chrome. The main content area displays the following text:

17 - Fine lezione 1: ti è tutto chiaro?

Adesso fai un breve momento di **autovalutazione**: pensa alla prima lezione, in cui hai letto il primo capitolo della storia e hai ricavato le regole di coniugazione e uso dell'*indicativo imperfetto*.

Qui sotto hai la lista degli argomenti fatti: se per ogni argomento la tua preparazione ti soddisfa *clicca sul quadratino a destra*. Se non fosse così, puoi andarti a rivedere gli argomenti meno chiari scorrendo la barra di sinistra. Scrivere nel Blocco Note Diario (in basso a sinistra) oppure nel diario (sempre in basso a sinistra, nella sezione "Attività di supporto") i tuoi commenti e i tuoi appunti ti aiuterà a capire nel tempo quali sono le cose che ti hanno creato più problemi, se hai dovuto usare altri materiali oltre a quelli di questo corso per fare gli esercizi, se hai capito il perché degli errori che hai fatto negli esercizi...

Poi passa all'attività seguente, la prima della seconda lezione del corso: conoscerai il detective della storia e avrai dettagliate informazioni sulla scena del delitto...

Lista di cose da fare	Fatto!
<input type="checkbox"/> Comprensione capitolo 1	<input type="checkbox"/>
<input type="checkbox"/> Imperfetto (uso)	<input type="checkbox"/>
<input type="checkbox"/> Imperfetto (coniugazione verbi regolari)	<input type="checkbox"/>

The sidebar on the left shows a sequence of activities: 16-Es imperf misti, 17-Fine lezione 1 (highlighted), 18 - Capitolo 2, 19-Scena del del..., and Attività di supporto. Below the sidebar are icons for 'Le strategie', 'Diario', 'Forum e MappaMal...', and 'Blocco Note'.

Figure 11: Task list as an auto-evaluation tool

Student perspective

The challenge, here, is to have students actually revising the previous activities: log files showed that all the students ticked all the items and stayed on the activity just for few seconds. Immediately after, however, some of them took their time to go back in the sequence or their journal, probably to check for difficult topics.

Conclusions

As Howell and colleagues stated some years ago (Howell et al., 2003), the growing development of didactic technologies is extraordinarily increasing the offer of blended courses, reducing dramatically the distinction between face-to-face and distance teaching. In this situation, it is especially important that researchers explore a new technology and describe their experience in a well-defined didactic context, in order to allow learning designers to understand whether the technology deserves to be used, after an accurate evaluation of its strengths and weaknesses.

This paper describes the experimentation I conducted at the University of Genoa (Italy) in 2013, about which I reported data concerning both learning designer's and student's point of views.

Some results are closely related with the learning field chosen (an ELE course addressed to Italian students): these outcomes, although based on a quite small sample of students, confirm and extend Alexander's (2009) claims. The use of LAMS as a CALL tool has some important benefits, such as the possibility of setting up a glossary and assessment tests with automatic feedback. Nevertheless, some work could still be done to provide more flexibility for LAMS learning designers: gap-fill and drag and drop tests, for example, could be excellent new tools for LAMS.

Students evaluated positively some tools which can be used independently from the learning field: the journal, the task list and the "Map" seemed to promote the activation of metacognitive strategies, which have a prominent role in all kind of learning processes, and especially in distance courses.

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