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Thinking the grammar: Teaching a cognitive grammar using digital tools in a blended-learning context

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Abstract

The teaching of certain aspects of Spanish grammar has always been challenging for both teachers and learners. Additionally traditional approaches to the teaching of grammar based on behaviourist views of learning promoting memorization and repetition have been disputed and the need to teach a cognitive grammar that responds to rules that can be understood according to the speaker's communicative intention and should be reflected upon has been proposed. This article is aimed at showing two activities, which have been designed using digital tools with the purpose of helping undergraduates studying Spanish at the University of Leeds to reflect on the grammar. On the one hand, the digital tool *Twine* has been used for creating a game-like story in which learners need to reflect on the difference between simple past and past continuous in Spanish. A second task has been proposed in which learners need to watch some videos showing different uses of the modes indicative and subjunctive in context and then share on a discussion board their hypothesis about grammar use. Both these activities are intended to promote and facilitate the learner's reflection and understanding of the grammar. On the other hand it is also the aim of this article to show that a blended-learning design constitutes the ideal framework to promote such a teaching and learning approach to the grammar based on reflection. Both traditional teaching through lectures and online tuition by using digital learning environments show benefits and constraints. However, a combination of both traditional and online tuition enhances the learner experience by facilitating the understanding of the grammar while also developing the learner's strategies for autonomous learning.

Key words: Second language teaching, Cognitive grammar, Digital tools, Gamification, Blended-learning.

1. Aims and teaching context

The teaching of certain aspects of Spanish grammar has always been challenging for both teachers and learners. More specifically, the differences between the Spanish modes indicative and subjunctive and the differences between past tenses (simple past/indefinido and past continuous/imperfecto) appear to be difficult to acquire by learners of Spanish. The aim of this article is to show two activities that have been designed using digital tools and which are intended to promote a teaching and learning of a cognitive grammar based on reflection and taking into account the context and the communicative intention. Such activities have been designed for undergraduates of a Spanish Module in the third and final year at the University of Leeds who are expected to achieve a C1 level in Spanish according to the Common European Framework of Reference (CEFR). Accordingly, a good command of the Spanish modes indicative and subjunctive as well as the past tense is required to achieve that level. Undergraduates attend grammar lectures every week over the academic year, therefore, the purpose of the activities proposed in this article is to combine attendance to lectures with tasks and activities on the digital learning environment of the University of Leeds (VLE) according to a blended-learning design thus providing learners with more time to reflect on the grammar and to work at their own pace. For a better understanding of the context table 1 shows the main characteristics of the Spanish module for which this tasks were designed, table 2 illustrates the learner's profile in this module and table 3 includes the learning conditions and digital resources that made possible this project.

Table 1. Module Characteristics

Module Characteristics	
Name of the module	SPPO3010 Practical Language Skills in Spanish 3
Module's Structure	Lectures: 2-hour weekly grammar lecture over 20 weeks Seminars: 1-hour weekly seminars over 20 weeks (seminars on the second semester will mainly consist of oral debates and presentations).
Method of Assessment	30% 1,000 words written project 20% Individual Oral presentation 15% Participation in oral debates 35% Grammar test
Number of participants	Aprox.130

Table 2. Learner's profile

Learners' Profile	
Type of learner	University undergraduates studying Spanish as foreign language.
Level of competence in the target language	B2+/C1 according to the CEFR
Preferences of learning	Learners have different styles of learning ranging from more deductive approaches (applying rules) to rather inductive and experiential learning approaches (observation, reflection and extraction of rules).
Level of digital literacy	Participants are already familiarised with the virtual learning environment (VLE) used by the University of Leeds through the platform <i>Blackboard</i> .

Table 3. Learning Conditions

Learning Conditions	
Accessibility to the VLE	<p>All students have personal usernames and passwords to access the VLE of the University of Leeds.</p> <p>They can access the platform from their personal digital devices or through the many computers available on campus.</p>
Current uses of the VLE	<p>The VLE of the University of Leeds is being used for the Module SPPO3010 for the following purposes:</p> <ul style="list-style-type: none"> • Displaying information about lectures (notes, worksheets), seminars and assignments. • Providing text-based and audio/video information (articles and papers) to prepare for oral presentations and debates. • Discussion boards for exchange of ideas among students. • Lecture capture: making the recording of lectures available to students.

2. Pedagogical approaches underpinning the design: Thinking the grammar and learning through dialogue and interaction

Two main pedagogical approaches underpin the design of the activities proposed in this paper: On the one hand, the idea that a cognitive grammar focused on meaning and not exclusively on form needs to be taught and be reflected upon. On the other hand a sociocultural approach which regards learning as the process and the product resulting from dialogue and interaction.

Llopis-García, Real-Espinosa and Ruiz-Campillo (2012) advocate for a shift in the way Spanish grammar has been traditionally presented to students of Spanish as a foreign language, namely, through a traditional and prescriptive grammar. On the one hand, traditional grammar has been developed from classic Aristotelian logic whereby language utterances are analysed according to how true they are in the reality outside the language. However, languages are not directly connected to an objective reality that exists outside the language but they are limited and constrained by speakers' perceptions of the world. Additionally, there might be different utterances that express the same true event or idea, meaning, that the language offers different perspectives and ways of approaching and expressing the same objective reality. On the other hand, the teaching of Spanish grammar has been based on principles of a prescriptive grammar, that is, a grammar usually focused on forms, and in which rules are regarded as 'characteristics of the system instead of options that depend on the speaker's communicative intention' (2012:11). Grammar rules are linked to meanings and, therefore, they should be considered in relation to the context and the message that the speaker's is trying to convey. Thus, according to Llopis-García, Real-Espinosa and Ruiz-Campillo, contrary to this traditional prescriptive or descriptive approach to grammar, a cognitive and operative grammar should be developed. Traditional descriptions of grammar have emphasized the importance of the form over the meaning. Conversely, a cognitive or operative grammar understands grammar as a system in which form and meaning are intertwined and communicative intention plays an important role. Grammar structures are not formed randomly but they are the formulations of the speaker's thinking (2012:16). This conception of language structure and grammar derives from Slobin's concept of *thinking for speaking* whereby a speaker is filtering his/her experience of the world through the linguistic possibilities offered by the language he/she is using (1996:76). Thus, a speaker's choices when formulating utterances are not arbitrary but the product of thinking and encoding experiences in the language according to communicative intentions. Accordingly, different grammar uses like, for example, the indicative and subjunctive modes in Spanish—which are particularly difficult to acquire by learners of Spanish—respond to rules and can be explained if form, meaning and context—including communicative intention—are considered. However, traditional ways of teaching the grammar have prioritized memorization over reflection. In tune with such a conception of grammar, Ruiz-Campillo in an interview conducted by Estevan Molina (2008) argued that it is necessary to teach students to think about the grammar and to reflect about grammar uses because the grammar responds to logical rules that can be understood instead of being learned by heart. Ruiz-Campillo further points out that such an approach to teaching proves to be more effective in terms of how learners will incorporate contents in a more meaningful way. By meaningful way Ruiz-Campillo is referring to Ausubel's definition of meaningful learning whereby new ideas are linked to already existing ideas thus enabling a better understanding of those news ideas (1968:108). Therefore if learners get to understand the mechanisms ruling the target language (in this case Spanish), they may establish connections and comparisons with their own native language and in doing this they make sense of how the systems work similarly or differently. Such a non-arbitrary understanding of how language works has implications in terms of retention. Meaningful learning thus facilitates that 'newly-learned' meaning becomes an integral part of a particular ideational system. [...] As a result, the temporal span of retention is greatly extended' (Ausubel, 1968:108). An approach to teaching grammar that relies on reflection contributes to both understanding and, consequently, to long-term

retention of the contents. Such an approach to teaching grammar has guided the design of both activities proposed in this paper as outline in table 1.

Table 1: Thinking the grammar

Learning Principle	Digital Tool	Task in the VLE
Learners should think about grammar uses taking into account form, meaning and context.	Game: <i>Twine</i>	While playing with <i>Twine</i> students have to reflect on uses of the past tense and make choices that will shape the development of the story.
	Videos and participation in discussion board	Learners will watch videos showing different uses of grammar, they will reflect on the specific example of grammar use and make hypothesis about why speakers made those grammar choices. They will share the hypothesis on a discussion board.

Aligned with the above-mentioned idea of learning as a process that involves reflection and thinking is the socio-cultural approach to learning. According to Vygotsky (1978:33) learning occurs through dialogue and interaction between previous and new ideas in what he called the Zone of Proximal Development (ZPD), an area in which the tension between those ideas lead to the development of new skills. Ausubel (1985:75) also claimed that interaction facilitated the incorporation of new concepts in the cognitive structure of pre-existing ideas. This constructivist conception of learning has underpinned the design of a task in which students have to share their hypothesis about grammar use on a discussion board. Accordingly, the interaction and dialogue generated on the discussion board would promote learning as well as the development of learner's strategies to infer meanings and uses of the language as shown in table 2.

Table 2: Learning through dialogue and interaction

Learning Principle	Digital Tool	Task in the VLE
Learning occurs through dialogue and interaction with others.	Discussion board	Prior to attending the grammar lecture, learners have to watch some videos showing specific uses of grammar and post their hypothesis about why certain tenses and modes are being used on a discussion board. They will comment each other posts and they will decide which hypothesis they are going to propose in the face-to-face lecture.

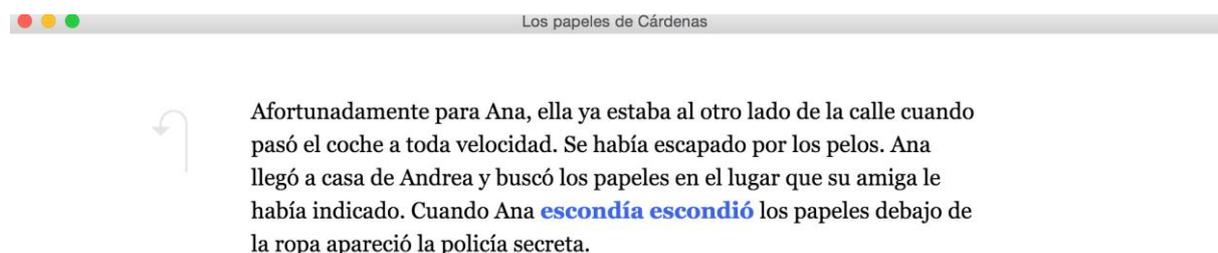
It must be emphasized that the selection of digital tools for designing activities should be informed by pedagogical approaches promoting the learning of a language and not the other way round. In this sense Boyle and Ravenscroft (2012:1225) explored the concept of deep learning design, whereby approaches to learning and teaching are reconsidered and digital tools are identified to best respond to those learning purposes. This means that digital tools or technology should not shape the designing of activities in digital learning environments but be accommodated in them according to specific

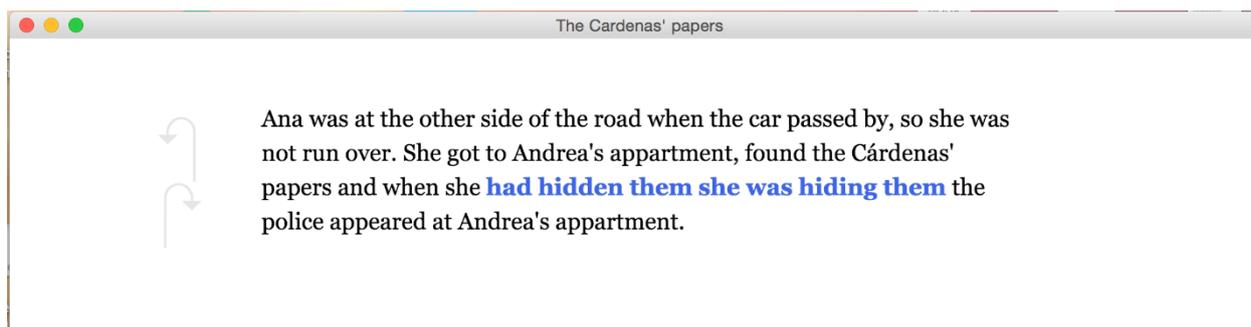
conceptions and pedagogies of how learning occurs. According to this, and once the pedagogical approaches have been explored, the next section will give an account of how those specific digital tools work and respond to the learning pedagogies already discussed.

3. The digital tool *Twine* and the practice of past tenses

Twine is a digital tool that allows the designer to create a story that unfolds according to the choices that the reader makes between two options that are given. *Twine* has been conceived to serve as a game and it works like the 'choose your own adventure' readings. Thus, depending on the reader's decisions the story will follow one path or another and will progress or not accordingly. In this sense, *Twine* constitutes an effective tool that offers a good opportunity for students to practice the differences and nuances in the use of the past tense in Spanish in context and always taking into account the communicative intention and the implications in terms of meaning when using one past or the other. Accordingly, a story was created in which users were always given two options to choose, namely, simple past/indefinido or past continuous/imperfecto. The aim was to practice and understand the difference between a finished action (expressed with simple past/indefinido) and a non-finished action (expressed with past continuous/imperfecto). The story is about two friends, Andrea who is a journalist and Ana who is a writer. Andrea has been arrested by the secret service in relation to information uncovering a scandal of political corruption that would involve the Spanish Prime Minister. Ana needs to help Andrea to get the papers including that information from Andrea's apartment and take them to the newspaper's editing room where Andrea works before the police have access to them. Each step of the story gives the reader the opportunity to choose between one option (simple past/indefinido) or the other (past continuous/imperfecto) and according to what the reader chooses, the story may progress and Ana accomplishes her mission or the story gets to a dead end in which Ana fails to take the papers to the newspaper's editing room. These are some screen shots of the activity and the different paths:

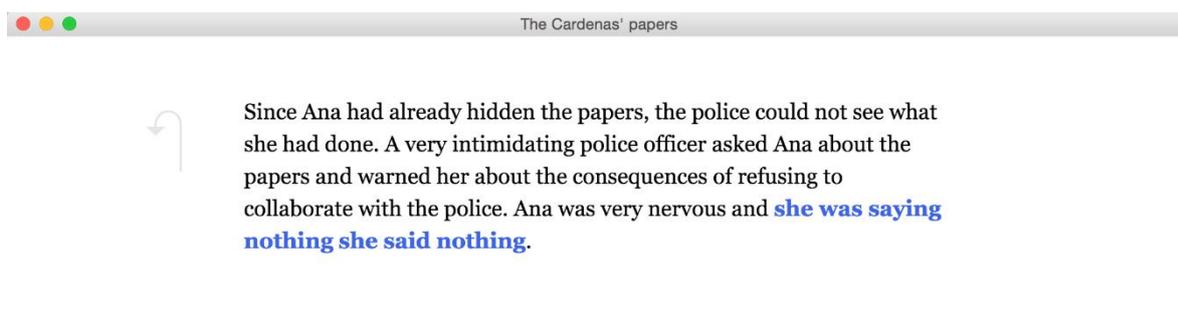
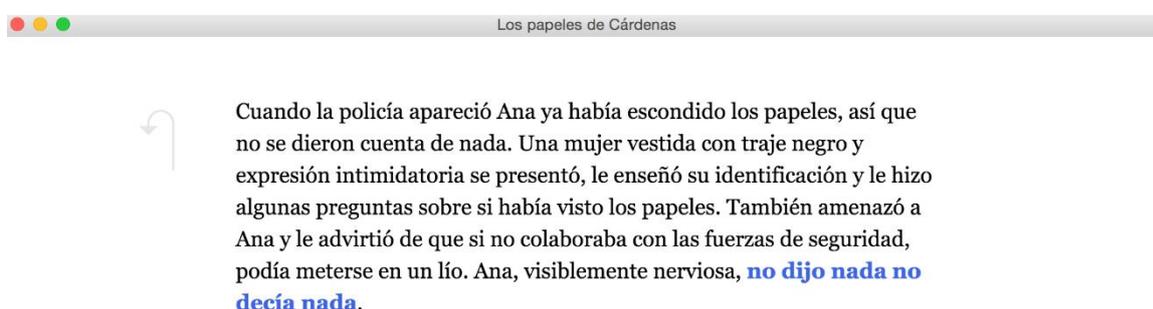
Screen shot 1 (Spanish and English translation)





Screen shot 1 shows a crucial point in the story in which Ana has found the papers but the secret service has been following her and two options are given. Screen shot 2 shows what happens if the reader chooses and clicks on the first option 'had hidden them'

Screen shot 2 (Spanish and English translation)



If the reader chooses the past form that expresses that the action is finished (past perfect in English/indefinido in Spanish) the story progresses. An explanation is also given whereby Ana successfully hides the papers before the secret service could see her. However, if the second option (past continuous/imperfecto) is chosen, 'was hiding them', the action of hiding the papers is not finished and the secret service is able to see what Ana did. Screen shot 3 shows how the story ends with this option.

Screen shot 3 (Spanish and English translation)

Los papeles de Cárdenas

Como Ana estaba escondiendo los papeles cuando entró la policía, vieron donde los estaba escondiendo y se los quitaron. Ana fue detenida y nunca pudo llevar los papeles a Andrea. FIN DE LA HISTORIA.

The Cardenas' papers

Since Ana was in the process of hiding the papers, the police could see what she was doing. They took the papers and arrested Ana. Andrea never got the Cárdenas' papers. END OF THE STORY.

What this activity shows is that in order to make the story progress the students/readers need to have a fully understanding of the differences between the two forms of past tense. They need to choose the option that will lead the main character to the next level and if they do not understand the difference they will not be able to make the right choices. Thus, this is in tune with a conception of grammar teaching that emphasizes the meaning, the context and the communicative intention over the form. Also, it is an activity that promotes reflection since the conflict between the options is not a question of what is right and what is wrong (both uses of the past tense are possible and accurate) but the difference in what is meant when using one of the past forms or the other.

Accordingly, there are several benefits of using this type of activity. Firstly, it is a meaningful teaching of the grammar, in the sense that it shows how different uses of the past tense (both correct) have different implications in terms of what it is being meant—a focused on meaning approach versus a traditional focused on form teaching. Secondly, the fact that the information is presented as a game can be both motivating but also it may serve those students who still struggle with the past tense to understand it more easily.

4. Understanding indicative and subjunctive: Watch, reflect, share and check

The online task presented in this section has been designed in combination with attendance to face-to-face grammar lectures and, therefore, it responds to a blended-learning design. According to Graham (2006:5) blended learning is a combination of face-to-face instruction and computer mediated (CM) instruction. Thus the purpose of this activity is to take advantage of the affordances offered by online instruction while also taking into account the benefits of attending face-to-face lectures. Table 3 outlines the advantages and disadvantages of both environments in relation to the teaching of grammar.

Table 3: Strengths and weaknesses of face-to-face and online instruction (based on Graham 2006:18)

	CM Environment	Face-to-face lecture
Strengths	▶ Learners have time to think and reflect about the grammar at their own pace.	▶ Human connection: the tutor explains using various resources (examples, body language, drawings) any questions that learners may have regarding the grammar. Such a connection with the tutor may help some learners to develop trust and reassure them.
Weaknesses	● Learners still need the guidance of a tutor to check and confirm their hypothesis about grammar use.	● Learners do not have enough time to reflect about the grammar, especially if there are faster or more participative students as opposed to shy students in the same group.

Taking into account the analysis of strengths and weaknesses illustrated in table 3, the following task has been designed:

Step 1 Watch: Prior to the face-to-face lecture, students will access the VLE to have a first contact with the grammar contents of that specific lecture. Learners will watch at least two short videos in which two different uses of the same grammar structure (one with indicative and the other with subjunctive) are being used in context.

Step 2 Reflect: Once students have watched the videos, they will have to reflect on that grammar point and make hypothesis (why are the speakers in the video using indicative or subjunctive?).

Step 3 Share: Students will post their hypothesis about the grammar use showed in the videos on a discussion board. They will read and comment other peers' posts (discussion boards will be organised in small groups) in order to come to a conclusion about the use of indicative/subjunctive in that specific grammar structure.

Step 4 Check: Students will then attend the face-to-face lecture to check and confirm their hypothesis and for further practice of the structures.

Tables 4 and 5 include the transcript of the dialogue shown in video 1 and 2.

Table 4: Dialogue/video 1 ¿Por qué indicativo? [Why indicative?]

Marina (Marina está mirando por la ventana) Aunque está lloviendo vamos al cine.

[(Marina is looking through the window) Although it is (indicative) raining we are going to the cinema, aren't we?]

Aitor (Aitor no está mirando por la ventana) ¿Está lloviendo?

[(Aitor is not looking through the window) Is it raining?]

Marina Sí.
 [Yes]

Aitor Bueno, pero vamos al cine igualmente.
 [Well, we are going to the cinema anyway]

Marina Vale.
 [Ok]

Table 5: Dialogue/video 2 ¿Por qué subjuntivo? [Why subjunctive?]

Marina (Marina está mirando por la ventana junto con Aitor) Aunque esté lloviendo vamos al cine, ¿no?
 [(Marina and Aitor are both looking through the window) Although it is (subjunctive) raining we are going to the cinema, aren't we?]

Aitor Sí, sí, vamos igualmente.
 [Of course, we are going anyway]

The aim of the videos is to focus the student's attention on the so-called 'concessive clauses' in Spanish. In both dialogues the structures are very similar since both sentences are introduced by 'aunque/although'. However, in the first example 'aunque' is followed by indicative while in the second a subjunctive is used. The dialogues include some cues that may help the student to infer the different uses of indicative and subjunctive in this particular case. In dialogue 1 Aitor asks Marina for confirmation when asking 'is it raining?' thus indicating that he did not know that it was raining. Moreover he was not looking through the window as Marina was. All this pieces of information lead us to think that Marina is using indicative because she wants to make a statement 'it is raining' (LLopis-García, Real Espinosa and Ruiz Campillo, 2012: 119-121), probably because she assumes that Aitor doesn't know that it is raining because he is not looking through the window. In dialogue 2, however, since both Marina and Aitor are looking through the window, we assume that they both know that it is raining. In this context, there is no need to make a statement about a fact that is already known by both speakers and, therefore, Marina uses the subjunctive (LLopis-García, Real Espinosa and Ruiz Campillo, 2012: 119-121).

As in the case of the activity designed with Twine to practice the past tense, this activity consisting in watching videos, reflecting on grammar uses in context and sharing hypothesis about language use may have several benefits: Firstly, it is promoting a meaningful learning of the language whereby rules are not applied randomly but they respond to communicative intention. This, in turn, has implications in terms of retention of information. Secondly, it provides students with strategies (making inferences or sharing information with each other) to develop themselves as autonomous learners.

5. Conclusions

This paper was aimed at showing two online tasks designed for blended-learning which promote a teaching and learning of the grammar based on reflection and focused on form instead of repetition and memorization. In one of the tasks, the digital tool Twine has been used to create a game-like story that, progresses depending on the reader's choices about two possible grammatical options. The second task presented in this paper has been designed according to socio-cultural conceptions of learning which regard dialogue and interaction as elements that trigger learning. After watching a series of videos showing different uses of the same grammatical structure, students reflect on grammar uses and share their hypothesis on a discussion board. This task is not only facilitating a meaningful learning of the grammar but it is also developing the student's strategies to keep on learning autonomously. Finally, these tasks have been designed after considering the affordances and constraints of both online and face-to-face instruction, which accounts for the decision of a blended-learning design.

Although the proposed tasks may offer some benefits according to specific pedagogical approaches to teaching and learning discussed before, there are also some constraints. On the one hand, the tasks have been designed but they have not been tested yet with undergraduates since design of the tasks overlapped with the end of the second semester. In this sense, it will be interesting to carry out a further analysis of the actual impact of such tasks in students in the following years. However, since undergraduates are in their final year at University, there is no possibility of following up students' progress in this respect but they could fill out a questionnaire assessing the whole experience with this new approach to teaching the grammar. Conversely, in order to determine the real impact of this approach to language learning, the project could be introduced in other Spanish modules that enable us to monitor in the following years students' progress.

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