

Mobile Learning for the Teaching of Theoretical Concepts to Undergraduate Students

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Abstract: The present paper presents the objectives, justification, chronological organization, and expected results of a work-in-progress research project located at the University of La Rioja during the academic year 2014/2015. The main aim of the project is to implement the use of the educational mobile application Celly© in the teaching of theoretical linguistic concepts (i.e. conceptual metaphor) to undergraduates of English and Oenology Studies. The project exploits the use of this mobile application with an eye on extending the learning process beyond the physical and temporal limits of the traditional teaching sessions confined to a classroom. The use of the application is also expected to allow the teachers involved to maximize the practise of some of the central competences required from their students: collaboration with students of different degrees (English Studies vs. Oenology students), independent work, and a responsible use of technology, among others.

1 INTRODUCTION

The present on-going research project is located at the University of La Rioja (Spain) and has been scheduled to be carried out during the academic year 2014-2015. This project is designed to explore the potentiality of use of new technological resources, such as mobile devices and their associated software, as well as other Web 2.0. tools (e.g. Google Scholar, internet repositories and archives, online corpora of specialized linguistic texts, etc.) in the teaching and learning process affecting undergraduate students.

The main objective is to improve the teaching process and the acquisition of specialized knowledge, and computer and basic communicative competences of students belonging to two different and apparently unrelated areas: undergraduate students of English Studies, on the one hand, and undergraduate students of Oenology, on the other. Both groups of students will be put in contact and will collaborate with one another through the educational mobile application Celly©. This application has been designed to provide higher levels of safety for its use in educational environments, as well as to allow teachers the possibility of moderating the discussions and

debates that they need to generate among their students.

2 CONTEXT

In the present-day educational context, an ever growing number of academic institutions is adopting mobile learning as a means of taking advantage of the numerous computer tools and applications which offer portability and ease of use, with an eye on taking the learning process beyond the limits of the material classroom (Park 2011, Crompton 2013, among others). The work-in-progress research project that will be outlined below precisely attempts to make use of mobile applications that enable university lecturers to take their teaching out of the material classroom and to endow it with the contextualization and technological flare with which present-day students, mostly digital natives, feel more at ease in their learning process. One of the most pervasive difficulties manifested by English Studies undergraduates at the University of La Rioja is that of putting into practice those theoretical linguistic concepts that are included in the syllabus of some of the more central subjects in their degree: Semantics of the English language, Pragmatics of

the English language, Discourse Analysis, etc.

One such concept, which cuts across the aforementioned subjects, is that of 'conceptual metaphor'. In the context of Cognitive Linguistics, a conceptual or cognitive metaphor is understood, not as a poetic or rhetorical figure, but rather as a conceptual mapping or projection from a source domain (usually concrete and easily accessible in nature) to a target domain (abstract and conceptually harder to grasp). As a result, this mapping facilitates the understanding, conceptualization, and verbalization of the latter (Johnson, 1987; Lakoff and Johnson, 1980; Lakoff, 1987; Lakoff and Turner, 1989; Lakoff and Johnson, 1999).

Simultaneously, those undergraduate students of degrees with their own and specialized linguistic discourse (such as those studying Oenology degrees) are often unconscious of the figurative and, more specifically, metaphorical basis of the specialized language of their discipline, as well as of the existence of complementary and competing metaphorical models for one and the same entity or state of affairs. By way of illustration, the main organoleptic features of wine can be expressed through a diverse array of conceptual metaphors such as WINE IS A SPICE (e.g. *a wine with pepper and cinnamon notes*), WINE IS A PERSON (e.g. *a young and lively wine*), WINE IS A GARMENT (e.g. *a wine with a velvet cape*), WINE IS AN OBJECT (e.g. *round, short, long wine*), and even through synesthetic metaphors such as TASTE IS SOUND (e.g. *a melodic, harmonious wine*), or TASTE IS TOUCH (e.g. *a velvety, or silky wine*) (Suarez-Toste, 2007; Caballero and Suarez-Toste, 2008, 2010; Caballero, 2009; Negro Alousque, 2011; Pérez-Hernández, 2011, 2013).

3 JUSTIFICATION OF THE STUDY

The present project arises from the need to address the following issues:

- the need to create a flexible context for undergraduate students of English Studies to use, in a real life environment, those theoretical concepts that are pivotal to their degree, preventing their de-contextualized memorization, and subsequent lack of assimilation.

- the need to raise awareness among undergraduate students of Oenology Studies about the specificities of their own professional discourse, in particular about the broad figurative and

metaphorical basis of the discourse of oenology, wine, and wine-tasting notes, and how the former delimits, articulates, and constrains the latter.

- the need to articulate a pedagogical context in which undergraduate students of both degrees under consideration can improve the basic competences required in their future professional contexts: collaboration with specialists in other areas/disciplines, proficiency in the use of computer tools and professional mobile applications, ability to discuss and build arguments about their specialization topics, ability to transfer, disseminate, and communicate abstract notions to non-experts and a general audience.

In addition, in the specific context of the University of La Rioja, the present project has been designed to fulfill the following institutional objectives:

- the need to experiment and analyze the potential benefits of the implementation of new and innovative teaching strategies, by means of exploring the strengths and weaknesses of the use of the educational mobile application Celly© for outside-the-classroom guided learning.

- the need to integrate, in the teaching practice of the professionals working in this institution, the pedagogic use of new information and communication technologies (e.g. Internet, electronic data bases, Google Scholar, computerized corpora such as the *British National Corpus*, the *Corpus of Contemporary American English* and the *CREA-Corpus of the Spanish Language Academy*, with the aim of improving the teaching and learning process with the use of real life linguistic data.

- the need to strengthen the presence of e-learning, in general, and mobile learning strategies, in particular, with the objective of enriching the inventory of teaching methodologies available to the professionals at the University of La Rioja.

- the need to create interdisciplinary research groups to tackle issues related to the implementation of new teaching strategies and methodologies, as well as to design teaching materials which provide students with learning experiences that closely resemble and reproduce their future professional environments.

4 RESEARCH OBJECTIVES

The main objective of this project is to explore the benefits and drawbacks of the use of mobile learning applications, in particular, of the educational mobile

application Celly© [<https://cel.ly/education>], and its influence on the teaching and learning of a fundamental theoretical notion that cuts across several subjects included in the English Studies academic curriculum, and that, at the same time, structures the future professional discourse of Oenology students, namely, the concept of 'conceptual metaphor'.

With this general aim in mind, the faculty involved in this project shall make use of a novel teaching methodology and teaching materials designed to integrate the use of the aforementioned mobile application with two small groups of undergraduate students belonging to both of the degrees under consideration (i.e. English Studies and Oenology Studies). At the end of the academic year, the selected groups of students will be evaluated on their rate of success in the comprehension and practical implementation of the notion of conceptual metaphor. These results will then be compared with a parallel evaluation performed on the group of students who have not taken part in the experiment in order to assess whether the use of the new method correlates with a better understanding of the theoretical notion under scrutiny (i.e. conceptual metaphor), and a wider use of metaphorical expressions in the specialized discourse of Oenology Studies undergraduates.

Broadly, it is expected that those undergraduates in both degrees who have taken part in the project exceed the rest of the students in understanding, identifying, and putting into practice the notion of conceptual metaphor in the context of a specific professional discourse.

This general objective can be split into the following more specific aims:

- to guide English Studies undergraduates in the task of describing and explaining the concept of conceptual metaphor through the use of information previously gathered on the Internet (via the databases and electronic publications made available by the University of La Rioja and Google Scholar).

- to guide English Studies undergraduates in the task of identifying the full inventory of conceptual metaphors underlying and structuring the Oenological discourse in the English language. This identification task will be based on the use of a corpus of specialized tasting notes extracted from different computerized corpora and internet repositories.

- to provide English Studies undergraduates with the necessary tools to establish a coordinated academic rapport with Oenology undergraduates in order to check, assess, and redefine the wine-related

metaphors that the former had previously identified. This will be done through the use of the mobile learning application Celly©.

- to make the Oenology undergraduates aware of the deep and steady metaphorical grounding of the professional discourse specific of their discipline, as well as to help them reflect on the advantages and disadvantages of the use of alternative competing metaphors in their communicational exchanges about wine.

5 METHODOLOGY

As opposed to the classical pedagogical models whose methodology is based on the mere transmission of information through oral lessons, and printed or electronic documents (Herrington et al., 2009), the present project pivots around a dynamic methodology that turns the students into active participants in the process of building their own knowledge.

The use of mobile learning and e-learning computerized tools and applications (e.g. Web 2.0, mobile devices, tablets, etc.) allows us to put into practice a new methodology in which students take on an active role in the use of the aforementioned resources in order to engage in a spontaneous and contextualized learning process.

The methodology adopted in this project, based on the use of mobile devices, will enable our students an immediate access to the relevant information, so as to make the learning process possible in any place and time, thus broadening the educational scenario beyond the frontiers of the physical classroom (Geddes, 2004).

This methodology will also facilitate the task of connecting students who attend different Schools and study different degrees in a flexible manner, liberating them from the need to establish physical meetings, tied to a particular place and a fixed timetable. This flexibility both in the students' access to the relevant information, and in their management of their study time is expected to translate into a wider and more active participation, as well as higher amounts of motivation, on their part.

Together with well-known tools related to the Web 2.0, such as *Google Docs*, *Skype*, and computerized corpora like *BNC*, *CREA*, and *COCA*, this project implements the use of a mobile application specifically designed for its use in educational institutions: Celly© (<https://cel.ly/education>).

Celly© is an Android application which is free

for the use of its basic features and available for download through the Google Play site. The application, which can be used in mobile phones, tablets, and computers, is a messaging software similar to the social network WhatsApp application, but it includes some additional features that make it safe and reliable for its use in educational contexts. Thus, Celly@ allows the creation of private virtual groups, under the moderation of the university lecturers involved in the project, in order to carry out debates, discussions, and academic surveys. These groups and their conversations, which are called *cells*, can at a later stage be downloaded for their archiving and/or evaluation.

6 PLANNED ACTIONS

The objectives specified in Section 3 will be carried out according to the following plan, part of which has already been implemented:

6.1 Coordination Meetings

In September 2014 two meetings have been held:

1. A coordination meeting of all members of the research group in order to launch the project. The external advisors (Professors F. González and Dr. K. Du vignau from the Universities of Almería and Toulouse II-Le Mirail respectively) joined the meeting through Skype.

2. An informative meeting with the two groups of undergraduate students (i.e. English and Oenology Studies). During this meeting they were informed about the objectives of the project, and their temporal organization, as well as about their own roles in it.

6.2 Online/in-site Workshops and Tutorials for Undergraduate Students

During the months of October-December, a number of workshops have been implemented through Google Docs. They are aimed at the students taking part in the project, and they have provided them with the necessary information about (1) the use of the Celly© application, (2) electronic databases, and (3) computerized corpora. These workshops have been accompanied by simultaneous tutorial assistance by all lecturers involved in the project, with the aim of solving doubts and problems that may have arisen during the online workshops.

6.3 On-site Seminar on Cognitive Metaphor

Addressed at English Studies students, Professor F.J. Ruiz de Mendoza Ibáñez and Dr. Lorena Pérez Hernández (University of La Rioja) have organized a specialized seminar on the conceptual construct of cognitive metaphor, in order to provide students with an initial explanation of the concept, its nature, elements, implications, and applications.

6.4 Design and Upload of a Collaborative Informative Document about the Notion of Conceptual Metaphor on Google Docs

With the knowledge acquired during the specialized seminar described in point C above, the undergraduate students of English Studies will create an informative document on the nature and characteristics of the notion of 'conceptual metaphor', including a description of its basic domains (source and target), its functions, and its particularities in comparison to other cognitive operations like metonymy, mitigation, or parametrization. This informative document will be shared through Google Docs with the undergraduate students of the Oenology degree by the end of the month of December of 2014.

6.5 Identification of Conceptual Metaphors on the Discourse of Wine

During the months of November and December, the undergraduate students of English Studies have also started to perform an initial search of conceptual metaphors for the communication of wine-related ideas in texts compiled by the members of the research project.

Simultaneously, during the second half of December, the undergraduate students will start to make use of the Celly© application in order to create *cells* with some of the metaphors they have identified. Two members of the research group, will take care of moderating the debate and participation on the *cells*. They will also correct the misinterpretations and mistakes made by undergraduate students in the identification of wine-related metaphors.

6.6 Search of Specialized Wine-tasting Notes (Specialized Texts) on Computerized Corpora

During the month of January 2015, the undergraduate students of English Studies will make use of several computerized corpora (i.e. *British National Corpus*, *Corpus of Contemporary American English* and *CREA-Corpus de Referencia del Español Actual*) in order to create a collection of excerpts of wine-related texts on which to carry out their definite search for the conceptual metaphors that structure this specific discourse.

6.7 Corpora Exploration, Identification and Classification of Metaphors and Diffusion of Results through Celly

During the month of February 2015, undergraduate students of English Studies will explore the collection of specialized texts that they had previously compiled from computerized corpora and Internet sources in search of the conceptual metaphors that underlie the discourse of wine.

Simultaneously, they will share those metaphors that they identify with the group of Oenology students, their lecturers, and the two external consultants. They will do this by means of the Celly© application on which a moderated debate will be held about the correctness of the identified metaphors. Eventually, once consensus has been reached on this issue, the metaphors will be classified attending to their target domains.

6.8 Creation of an Online Collaborative Document on Google Docs with a Classification of the Metaphors Identified during the Project, including Examples of Their Linguistic Manifestations

This task will be performed by undergraduate students enrolled in English Studies at the University of La Rioja during the month of March 2015. The document will then be shared with the Oenology undergraduates also through Google Docs.

6.9 Discussion among Undergraduate Students via Celly©

During the month of April, undergraduates from

both English Studies and Oenology Studies will debate over the classification of metaphors previously uploaded and shared through Google Docs.

The debate will be moderated by four members of the research team of the University of La Rioja, who will gradually liberate each of the wine-related metaphors identified by English Studies undergraduates for their discussion and potential redefinition, if necessary, based on the suggestions and comments made by Oenology Studies undergraduates. See an example of the discussions through Celly in Appendix 1.

6.10 Evaluation, Analysis and Diffusion of Results in Conferences, Specialized Forums, and Academic Publications

During the month of May 2015, the members of the research team of the University of La Rioja, together with the two external consultants from the University of Almería and Toulouse II-Le Mirail, will carry out an evaluation of the objectives, and will assess the degree to which the central concept (i.e. conceptual metaphor) has been learned by the undergraduates involved in the project, as well as by a control group of students who did not take part in it. The degree to which these students are capable of applying their newly acquired knowledge about conceptual metaphor to the analysis of specific discourse types will also be assessed.

The results will be included in a document for its dissemination in Conferences and scientific meetings, as well as its publication in journals specialized in new pedagogical strategies in connection with the use of mobile technologies, Web 2.0, and other computer tools.

7 EXPECTED RESULTS

It is expected that the new methodological and pedagogical strategy designed for this project will pave the way for the achievement of the following main educational challenges:

-A stronger degree of implication and motivation on the part of the students during the learning process. This factor will be assessed through the observation and quantification of the frequency of use of the *cells* during the project.

-An increase in the degree of acquisition of the basic competences: technological -use of specific

mobile learning applications; communicative -ability to explain and disseminate theoretical concepts to non-experts; and professional -ability to collaborate and coordinate with other colleagues in order to achieve a common goal.

These aspects will be evaluated through the use of specific surveys addressed to the students that have taken part in the project.

-An increase in the amount of understanding of the theoretical notion around which the whole project pivots (i.e. conceptual metaphor), as well as of the ability to apply this notion to the description of any specialized discourse (e.g. wine-related discourse). The final evaluation of the students will include concrete questions that permit a quantification of the level of improvement achieved by the former.

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