

18 Virtual learning environments on the go: CALL meets MALL

Jorge Arús Hita¹

Abstract

This paper presents *Eating out*, a Moodle-based digital learning resource for English as a Foreign Language (EFL) teaching that can be run both on computers and mobile devices. It is argued that Mobile Assisted Language Learning (MALL) resources do not necessarily need to be specifically designed for such platforms. Rather, a carefully planned methodology and a well-grounded theoretical basis for the explanation of lexicogrammatical issues are posited as the keys to the creation of Foreign Language Teaching (FLT) digital resources for which computer as well as mobile device users feel they are getting their time's worth.

Keywords: CALL, MALL, Moodle, systemic functional linguistics, teaching methodology, VLE.

1. Introduction

This paper defends the use of a solid theoretical and methodological basis for the design and development of digital learning resources for FLT as a way to make them useful on both PC and mobile platforms. To that end, it presents and discusses *Eating out*, a digital learning resource with strong theoretical and methodological underpinnings. Several e-learning areas are concerned here, notably a) Virtual Learning Environments (VLEs), as *Eating out* uses Moodle, one of the most widely-used VLEs nowadays, b) Computer Assisted Language

1. Universidad Complutense de Madrid, Madrid, Spain; jarus@ucm.es

How to cite this chapter: Arús Hita, J. (2016). Virtual learning environments on the go: CALL meets MALL. In A. Pareja-Lora, C. Calle-Martínez, & P. Rodríguez-Arancón (Eds), *New perspectives on teaching and working with languages in the digital era* (pp. 213-222). Dublin: Research-publishing.net. <http://dx.doi.org/10.14705/rpnet.2016.tislid2014.435>

Learning (CALL), as the resource is used for language learning, and c) MALL, since *Eating out* can be run on a mobile device.

The use in FLT of VLEs, also known as Learning Management Systems (LMSs), has already gone a long way, as shows the literature on the subject. Publications from only a few years ago, such as [Baten, Bouckaert, and Khan \(2009\)](#), which would be fairly recent in other disciplines, feel much older in the fast-moving e-learning world. [Bueno-Alastuey and López Pérez \(2013\)](#), [Ernest, Heiser, and Murphy \(2013\)](#), [Hubackova and Semradova \(2013\)](#) or [Xiaoqiong, Guoqing, and Zeng \(2013\)](#) are but a few examples of the more recent literature on the use of VLEs for FLT. A good number of researchers specifically look at the use of Moodle for FLT, e.g. [Ono, Ishihara, and Yamashiro \(2014\)](#), [Sun \(2014\)](#), [da Costa Pinho et al. \(2013\)](#), even devoting a whole volume to it, as [Stanford \(2009\)](#) did a few years ago (for Moodle 1.9; unfortunately, there seems to be no follow-up for more recent Moodle versions). There is even literature on the use of Moodle for teaching Languages for Specific Purposes (LSPs), which is of interest to us here because *Eating out*, a general EFL unit in itself, is intended as part of a more comprehensive Business English course. Some of the most recent references on Moodle and LSP are [Breeze \(2014\)](#), [Martín-Monje and Talaván \(2014\)](#), [Perea-Barberá and Bocanegra-Valle \(2014\)](#) and [Rodríguez-Arancón and Calle-Martínez \(2014\)](#), all of them within the monograph edited by [Bárcena, Read and Arús \(2014\)](#).

If we turn our attention to the use of mobile devices for FLT, i.e. MALL, the proliferation of research papers and book chapters is staggering, as attested, for instance, by the 65-page-long annotated bibliography in [Burston \(2013\)](#). One of the big issues when speaking of MALL coincides with the main concern of this paper, i.e. the methodology underlying mobile applications. The literature is unsurprisingly quite abundant here, too, e.g. [Baleghizadeh and Oladrostam \(2010\)](#), [Burston \(2014, 2015\)](#) and [Xin \(2014\)](#). Among the methodological issues discussed in the MALL literature, there is one which triggers frequent disagreement, i.e. whether MALL activities must be specifically designed for mobile devices or they can be safely adapted from general CALL activities, even paper-based ones. [Ballance \(2012, 2013\)](#) makes a point for the use of activities

specifically designed for MALL platforms. According to this author, failure to do this explains the results of experiments such as the one reported by [Stockwell \(2010\)](#), where students took longer to perform the same activity on a mobile device than on a PC. [Stockwell's \(2010\)](#) comparison of student performance in the same task on CALL and MALL closely relates to some of the research work based on *Eating out* ([Arús & Rodríguez-Arancón, 2015](#)), which will be mentioned later on.

The rest of this paper is structured as follows: section 2 presents *Eating out*, focusing on its strong theoretical and methodological background, whereas section 3 provides some discussion in the light of the description in the previous section, as well as offering some concluding remarks.

2. Eating out

This digital learning resource is the result of work carried out within the Spanish government-funded SO-CALL-ME (*Social Ontology-driven Cognitively Augmented Language Learning Environment*) project (ref. FF12011-29829). Within this project, a number of mobile applications have been created for English language teaching in the broader context of LSP. The apps so far developed are ANT, for oral comprehension practice through the news; FANCLUB, for the same skill but through audio-books; BUSINESS APP, focusing on the listening comprehension of business-related situations; MARLUC, for the pronunciation of specific words; VIOLIN, for the audiovisual comprehension of videos; VISP, for oral production; and *Eating out*, which, as said, is not an app in itself but rather a teaching resource for listening comprehension and communicative practice (CEFR² level A2-B1) amenable to use both on computers and mobile devices.

Previous work by SO-CALL-ME members, in which a number of EFL-teaching apps and digital resources were evaluated, identified the need for the reinforcement

2. Common European Framework of Reference for Languages

of the pedagogical aspect of this kind of resources (Arús, Rodríguez-Arancón, & Calle-Martínez, 2013; Calle-Martínez, Rodríguez-Arancón, & Arús, 2014; Martín-Monje, Arús, Rodríguez-Arancón, & Calle-Martínez, 2013; Pareja-Lora et al., 2013; Rodríguez-Arancón, Arús, & Calle-Martínez, 2013). In this light, we undertook the creation of *Eating out*, which stems from a didactic unit previously designed and meant for traditional textbook-based teaching. However, due to the interactive nature of the unit, it was considered that it could lend itself to adaptation as a digital learning resource. The challenge at that point was to test whether the solid theoretical and methodological work underlying the original didactic unit would make up for the dramatic platform change, i.e. from textbook to computer to mobile devices.

*Eating out*³ uses Systemic Functional Grammar (SFG) as a theoretical framework both for the methodological conceptualisation of the entire resource and for the explanation of the lexicogrammar necessary to achieve the unit's learning goals. This theory describes languages by means of system networks. These system networks try to capture the fact that speakers are constantly making choices from the different possibilities available in the lexicogrammar of their language. For instance, in the case of mental transitivity, which is important to this lesson (see below), speakers can choose to express a cognitive process (e.g. *I know...*), an emotive process (e.g. *I like...*), a perceptive process (e.g. *I feel...*) or an intentional process (e.g. *I'm thinking of...*), each one with an associated set of rules. By using this approach, *Eating out* seeks to familiarise students with the options available for each area of the grammar, as well as the associated rules, so they use the target language with the same mechanisms applied when they speak their mother tongue, i.e. making meaningful selections. Additionally, SFG considers that linguistic choices are dependent on choices made outside language, i.e. at the level of context. We will not delve into the complexity of this interdependency; it will suffice to say that contextual choices are based on criteria related to the nature of the interactants, the subject matter at stake and the role of language in negotiating a given situation. If the SFG-based lexicogrammatical approach accounts for the theoretical strength of *Eating out*,

3. Available at <https://cv4.ucm.es/moodle/course/view.php?id=32765>

the context-language interdependency is at all times present in this resource: all activities are contextualised within the general notion-functional goals, as described below, thus accounting for *Eating out's* methodological robustness. [Arús \(2008\)](#) offers a detailed account of how to exploit SFG in EFL teaching.

Eating out consists of four sections preceded by an introduction to the unit's notio-functional goals – ordering and eating unknown food, something with which one often has to cope when travelling for business – as well as the learning goals, which are: a) identify unfamiliar words from the context on topics related to his/her interests; b) deal with situations likely to arise whilst travelling in an area where the language is spoken; and c) socialise simply but effectively using simple common expressions and following basic routines.

The four sections of the unit are: 1. 'Listening Comprehension'; 2. 'Vocabulary'; 3. 'Lexicogrammar'; and 4. 'Over to you'. The listening comprehension section consists of a recording where three characters go to get a cheesesteak in Philadelphia for the first time, followed by a number of comprehension questions on the listening activity. If students do not reach a minimum scoring they are then advised to listen to the situation once more and answer another battery of questions; if they still have trouble understanding and answering the comprehension questions, they are then asked to read the script.

In the vocabulary section, students are presented with a list of the most relevant vocabulary to the unit. This list is supported by a glossary accessible by clicking on each word, and is then followed by a matching activity where vocabulary items have to be matched with their definitions.

The lexicogrammar section is *Eating out's piece de resistance*. As said above, it uses SFG to introduce students to the transitivity of mental processes, i.e. expressions of cognition, perception, intention and emotion, as described, for instance, in [Halliday and Matthiessen \(2004\)](#). These processes are extensively used in the situation to which students listen at the beginning of the lesson, as ordering food requires the use of expressions such as *I'd like (a drink)*, *I don't know (what to order)*, *I love (meat)*, etc. This is an example of how everything

in *Eating out* is contextualised. Two sets of questions for lexicogrammatical practice, created by means of Moodle's short answer questions, follow the lexicogrammatical explanation. As previously with the listening comprehension practice, students are advised to go through the second round of questions if they perform poorly on the first round. Before undertaking this second attempt, they can consult a more detailed lexicogrammatical explanation of mental transitivity.

The last section, 'Over to you', tries to provide more creative practice for the unit's lexicogrammar. All activities in *Eating out* are designed to be automatically corrected by the program, so students can have immediate feedback. Therefore it is not really possible to provide really open-ended, creative activities, which would require human supervision for correction and feedback. As said above, however, the unit tries at all times to integrate the materials into the notio-functional goals specified and an attempt is made to gradually move students into more productive language use. Inter- and intra-activity contextualisation as well as the transition throughout the unit from more controlled to more creative use of the language, with the limitations just mentioned, are recognised as two key methodological requirements for successful FLT (see, e.g. [Omaggio-Hadley, 2000](#)).

3. Discussion and concluding remarks

That *Eating out* is indeed successful in achieving its goals is attested by [Arús and Rodríguez-Arancón \(2015\)](#), who report on an experiment in which 32 university students worked with *Eating out* – some of them on a computer, some on a mobile device – and then completed a questionnaire containing a number of methodological and technical questions. The experiment did not look at results in terms of students' scores but rather at the students' perception of their experience using the resource, which was meant to complement previous work which, as mentioned in the description of *Eating out*, evaluated apps from the point of view of researchers.

The experiment revealed that students gave *Eating out* an average rating of 4 out of 5, 3.6 being the lowest score. Interestingly, the average scores for the

resource on PC and on mobile devices was the same, 4 out of 5 in both cases, and the technical ratings in the MALL experience were very similar to those in the CALL experience, which means that students were not troubled by the specificities of MALL platforms, with their smaller screens and keyboards or touch-screen interfaces, more than by CALL platforms. This seems to suggest that activities, even whole units as in this case, which have not been designed exclusively for mobile devices can still be as satisfactorily perceived by MALL users as by CALL users. Pending further experimentation that confirms the results in [Arús and Rodríguez-Arancón \(2015\)](#), we can now tentatively claim that a) the reason for the good overall results in user satisfaction, and notably the similar results obtained from CALL and MALL users, is that *Eating out* is a good teaching resource; and b) what makes it good is its well-planned methodological deployment and sound theoretical background, as described in this paper. This does not mean that the technical aspects do not count, but rather that if the contents are good, users are ready to obviate technical hindrances – as long, obviously, as they are not blatantly hard to surmount. And, in the case of FLT applications, as in FLT in general, good contents mean a good methodology and an appropriate theoretical deployment.

4. Acknowledgements

The research described in this paper has been partly funded by the *Spanish Ministry of Science and Innovation*, Grant **FFI2011-29829**: Social Ontology-based Cognitively Augmented Language Learning Mobile Environment (SO-CALL-ME).

References

- Arús, J. (2008). Teaching modality in context: a sample lesson. *Odense Working Papers in Language and Communication*, 29, 365-380.
- Arús, J., & Rodríguez-Arancón, P. (2015). Autonomous learning resources for the teaching of EFL: what learners think. *Encuentro* 23, 1-15.

- Arús, J., Rodríguez-Arancón, P., & Calle-Martínez, C. (2013). A pedagogic assessment of mobile learning applications. In *Proceedings of ICDE 2013*.
- Baleghzadeh, S., & Oladrostam, E. (2010). The effect of mobile assisted language learning (MALL) on grammatical accuracy of EFL students. *MEXTESOL Journal*, 34(2), 77-86.
- Ballance, O. J. (2012). Mobile-language learning: more than just 'the platform'. A commentary on: using mobile phones for vocabulary activities: examining the effect of the platform, Stockwell, 2010. *Language Learning and Technology*, 16(3), 21-23.
- Ballance, O. J. (2013). MALL—somewhere between the tower, the field, the classroom and the market: a reply to professor Stockwell's response. *Language Learning and Technology*, 17(1), 37-46.
- Bárcena, E., Read, T., & Arús, J. (Eds.). (2014). *Languages for specific purposes in the digital era*. New York: Springer. Retrieved from <http://dx.doi.org/10.1007/978-3-319-02222-2>
- Baten, L., Bouckaert, N., & Khan, Y. (2009). The use of communities in a virtual learning environment. In M. Thomas (Ed.), *Handbook of research on Web, 2.0 and second language learning* (pp. 137-155). London: IGI Global. Retrieved from <http://dx.doi.org/10.4018/978-1-60566-190-2.ch008>
- Breeze, R. (2014). Moodle glossary tasks for teaching legal English. In E. Bárcena, T. Read, & J. Arús (Eds.), *Languages for specific purposes in the digital era* (pp. 111-128). New York: Springer International Publishing. Retrieved from http://dx.doi.org/10.1007/978-3-319-02222-2_6
- Bueno-Alastuey, M. C., & López-Pérez, M. V. (2013). Evaluation of a blended learning language course: students' perceptions of appropriateness for the development of skills and language areas. *Computer Assisted Language Learning*, 27(6), 1-19. Retrieved from <http://dx.doi.org/10.1080/09588221.2013.770037>
- Burston, J. (2013). Mobile-assisted language learning: a selected annotated bibliography of implementation studies. *Language Learning & Technology*, 17(3), 157-225.
- Burston, J. (2014). The reality of MALL: still on the fringes. *CALICO Journal*, 31(1), 103-125. Retrieved from <http://dx.doi.org/10.11139/cj.31.1.103-125>
- Burston, J. (2015). Twenty years of MALL project implementation: a meta-analysis of learning outcomes. *ReCALL*, 27(1), 4-20. Retrieved from <http://dx.doi.org/10.1017/S0958344014000159>
- Calle-Martínez, C., Rodríguez-Arancón, P., & Arús, J. (2014). A scrutiny of the educational value of EFL mobile learning applications. *Cypriot Journal of Educational Sciences*, 9(3), 137-146.

- Da Costa Pinho, I., Epstein, D., Reategui, E. B., Correa, Y., & Polonia, E. (2013). The use of text mining to build a pedagogical agent capable of mediating synchronous online discussions in the context of foreign language learning. In *Frontiers in Education Conference, 2013* (pp. 393-399). *IEEE*. Retrieved from <http://dx.doi.org/10.1109/FIE.2013.6684853>
- Ernest, P., Heiser, S., & Murphy, L. (2013). Developing teacher skills to support collaborative online language learning. *The Language Learning Journal, 41*(1), 37-54. Retrieved from <http://dx.doi.org/10.1080/09571736.2011.625095>
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2004). *An introduction to functional grammar* (3rd ed.). London: Arnold.
- Hubackova, S., & Semradova, I. (2013). Comparison of on-line teaching and face-to-face teaching. *Procedia-Social and Behavioral Sciences, 89*, 445-449. Retrieved from <http://dx.doi.org/10.1016/j.sbspro.2013.08.875>
- Martín-Monje, E., & Talaván, N. (2014). The I-AGENT project: blended learning proposal for professional English integrating an AI extended version of Moodle with classroom work for the practice of oral skills. In E. Bárcena, T. Read, & J. Arús (Eds.), *Languages for specific purposes in the digital era* (pp. 45-67). New York: Springer International Publishing. Retrieved from http://dx.doi.org/10.1007/978-3-319-02222-2_3
- Martín-Monje, E., Arús, J., Rodríguez-Arancón, P., & Calle-Martínez, C. (2013). REALL: rubric for the evaluation of apps in language learning. In *Proceedings of ML13* (pp. 1-12).
- Omaggio-Hadley, A. (2000). *Teaching language in context*. Boston: Heinle & Heinle.
- Ono, Y., Ishihara, M., & Yamashiro, M. (2014). Instant text-based feedback systems—the development of a text-based feedback system and its potential use in foreign language teaching. *Journal of Information Technology and Application in Education, 3*(1), 1-8. Retrieved from <http://dx.doi.org/10.14355/jitae.2014.0301.01>
- Pareja-Lora, A., Arús, J., Martín-Monje, E., Read, T., Pomposo-Yanes, L., Rodríguez-Arancón, P., Calle-Martínez, C., & Bárcena, E. (2013). Toward mobile assisted language learning apps for professionals that integrate learning into the daily routine. In L. Bradley & S. Thouěsny (Eds.), *20 Years of EUROCALL: Learning from the Past, Looking to the Future* (pp. 206-210). Dublin Ireland: Research-publishing.net. Retrieved from <http://dx.doi.org/10.14705/rpnet.2013.000162>
- Perea-Barberá, M. D., & Bocanegra-Valle, A. (2014). Promoting specialised vocabulary learning through computer-assisted instruction. In E. Bárcena, T. Read, & J. Arús (Eds.), *Languages for specific purposes in the digital era* (pp. 129-154). New York: Springer International Publishing. Retrieved from http://dx.doi.org/10.1007/978-3-319-02222-2_7

- Rodríguez-Arancón, P., Arús, J., & Calle-Martínez, C. (2013). The use of current mobile applications in EFL. In *Proceedings of IETC 2013* (pp. 1219-1225).
- Rodríguez-Arancón, P., & Calle-Martínez, C. (2014). A practical application of wikis for learning business English as a second language. In E. Bárcena, T. Read, & J. Arús (Eds.), *Languages for specific purposes in the digital era* (pp. 155-173). New York: Springer International Publishing. Retrieved from http://dx.doi.org/10.1007/978-3-319-02222-2_8
- Stanford, J. (2009). *Moodle 1.9 for second language teaching*. Birmingham: Packt Publishing.
- Stockwell, G. (2010). Using mobile phones for vocabulary activities. Examining the effects of the platform. *Language Learning and Technology*, 14(2), 95-110.
- Sun, L. (2014). Investigating the effectiveness of Moodle-based blended learning in college English course. *International Journal of Information Technology and Management*, 13(1), 83-94. Retrieved from <http://dx.doi.org/10.1504/IJITM.2014.059152>
- Xiaoqiong, Y., Guoqing, Y., & Zeng, Z. (2013). Personalized teaching model based on Moodle platform. In Z. Zhong (Ed.), *Proceedings of the International Conference on Information Engineering and Applications (IEA) 2012* (pp. 27-35). New York: Springer International Publishing. Retrieved from http://dx.doi.org/10.1007/978-1-4471-4856-2_4
- Xin, J. (2014). The effectiveness of m-learning in the form of smart phones in English grammar teaching. *Sino-US English Teaching*, 11(1), 13-17.



Published by Research-publishing.net, not-for-profit association
Dublin, Ireland; Voillans, France, info@research-publishing.net

© 2016 by Antonio Pareja-Lora, Cristina Calle-Martínez, and Pilar Rodríguez-Arancón (collective work)
© 2016 by Authors (individual work)

New perspectives on teaching and working with languages in the digital era
Edited by Antonio Pareja-Lora, Cristina Calle-Martínez, Pilar Rodríguez-Arancón

Rights: All articles in this collection are published under the Attribution-NonCommercial -NoDerivatives 4.0 International (CC BY-NC-ND 4.0) licence. Under this licence, the contents are freely available online as PDF files (<http://dx.doi.org/10.14705/rpnet.2016.tislid2014.9781908416353>) for anybody to read, download, copy, and redistribute provided that the author(s), editorial team, and publisher are properly cited. Commercial use and derivative works are, however, not permitted.



Disclaimer: Research-publishing.net does not take any responsibility for the content of the pages written by the authors of this book. The authors have recognised that the work described was not published before, or that it was not under consideration for publication elsewhere. While the information in this book are believed to be true and accurate on the date of its going to press, neither the editorial team, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, expressed or implied, with respect to the material contained herein. While Research-publishing.net is committed to publishing works of integrity, the words are the authors' alone.

Trademark notice: product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Copyrighted material: every effort has been made by the editorial team to trace copyright holders and to obtain their permission for the use of copyrighted material in this book. In the event of errors or omissions, please notify the publisher of any corrections that will need to be incorporated in future editions of this book.

Typeset by Research-publishing.net
Cover design and frog picture by © Raphaël Savina (raphael@savina.net)

ISBN13: 978-1-908416-34-6 (Paperback - Print on demand, black and white)
Print on demand technology is a high-quality, innovative and ecological printing method, with which the book is never 'out of stock' or 'out of print'.

ISBN13: 978-1-908416-35-3 (Ebook, PDF, colour)
ISBN13: 978-1-908416-36-0 (Ebook, EPUB, colour)

Legal deposit, Ireland: The National Library of Ireland, The Library of Trinity College, The Library of the University of Limerick, The Library of Dublin City University, The Library of NUI Cork, The Library of NUI Maynooth, The Library of University College Dublin, The Library of NUI Galway.

Legal deposit, United Kingdom: The British Library.
British Library Cataloguing-in-Publication Data.
A cataloguing record for this book is available from the British Library.

Legal deposit, France: Bibliothèque Nationale de France - Dépôt légal: mai 2016.