Design of a MOOC on personal language learning environments for digital language skills development

Marta Fondo[1] and Angelos Konstantinidis[2]

Abstract. There is a mismatch between the availability of learning opportunities on the internet and the optimised use of them by learners. Disruptive technologies have always required time to be integrated into society to fully make use of their benefits. The Massive Open Online Course (MOOC) 'Create your own Personal Language Learning Environment (PLLE)' emerges from the willingness to provide language learners with digital and language skills for autonomous learning while fulfilling the research interests about exploring the learners' needs, how they use the internet, and how they can become more autonomous. Following the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model for instructional design and connectivism principles, the study presents the design process of a MOOC which aims to integrate data gathering tools into course content in a way that allows iterative formative course evaluations not affecting the learning process.

Keywords: personal language learning environments, connectivism, online course design, MOOC.

1. Introduction

Over the last decades web technologies have drastically changed the way people live, work, communicate, and study. Nowadays, language students can boost their learning by using a variety of digital tools for language learning while interacting virtually with other learners and speakers of their target language. However, only a few learners go one step further establishing more complex relationships between tools, tasks, and themselves, enriching each other (Buckingham, 2007). In this project, we designed a MOOC on PLLE to support language learners in developing

1. Universitat Oberta de Catalunya, Barcelona, Spain; mfondo@uoc.edu
2. University of Nottingham, Nottingham, United Kingdom; angelos.konstantinidis@nottingham.ac.uk

How to cite this article: Fondo, M., & Konstantinidis, A. (2018). Design of a MOOC on personal language learning environments for digital language skills development. In P. Taalas, J. Jalkanen, L. Bradley & S. Thouësny (Eds), *Future-proof CALL: language learning as exploration and encounters – short papers from EUROCALL 2018* (pp. 64-69). Research-publishing.net. https://doi.org/10.14705/rpnet.2018.26.814

© 2018 Marta Fondo and Angelos Konstantinidis (CC BY)

language learning strategies and self-managing their learning. The ADDIE model (Davis, 2013) is employed for the design and development of the MOOC, whereas the theory of connectivism (Siemens, 2005) forms its pedagogical foundation. The article presents the stages of the development process of the MOOC in a pre-pilot phase. The aim of the current study is to present how the ADDIE model and connectivism can be used jointly for MOOC design on PLLE. In addition, we aimed to showcase a method for developing course content which also allows data gathering in order to carry out a less intrusive research.

2. Method

The design and development of the MOOC on PLLE is based on two theoretical cornerstones. It is guided by the stages and processes of the ADDIE model for instructional design, which provides a necessary structure and order for the development of the MOOC. On the other hand, learning in online environments is hardly a straightforward and simple process, making it challenging to be approached by traditional pedagogical theories. Therefore, the theory of connectivism, which perceives learning as a process that is not entirely under the control of the individual and occurs within complex and lacking definite form environments (Siemens, 2005), has been employed.

In the following subsections, the five phases – *Analysis*, *Design*, *Development*, *Implementation*, and *Evaluation* (of the ADDIE model) – of the course design process are explained under the prism of the theory of connectivism.

2.1. Analysis

In this first phase, the objective was identifying the needs of language learners regarding internet use and set the instructional and research goals. Taking into account the underlying rationale for developing the MOOC, its aim was established as: *To support participants in developing their language learning strategies, building their PLLE, cultivating their digital skills, and becoming more autonomous*. The topics established for each week were: (1) PLLE concepts and practice, (2) digital tools for enhancing listening, and speaking skills, (3) digital tools for enhancing reading and writing skills, and (4) revision. In order to assure adequate communication between participants, a B1 level of English was required for participation in the course. Regarding the research goals, it was agreed to explore whether and to what extent participants in the course alter their strategies and ways of using digital tools for language learning.

2.2. Design

In the design phase, the main instructional strategies, the learning activities, and the assessment methods were determined as well as the technologies to be used. The aim of each week was designed to have an affordable workload and with the objective of developing language and digital skills in a holistic manner.

Each week there was a video lecture introducing the content and activities of the week as well as a gamut of different activities. Following the connectivist principles, the activities were directed to share and collaborate, learning and building knowledge in community (see Table 1).

Table 1. Aims and pedagogical foundations of the activities in the course

Type of task	**Type of activity**	**Aim**	**Pedagogical foundation (connectivism)**
Forum discussion	Collaborative	Collaborative space to share and reflect	Building knowledge from diverse opinions
Online synchronous discussions	Collaborative	Direct communication with peers and tutors	Strengthen connections among participants
Creation of learning material using and reusing open educational resources	Individual	Tailored learning materials adapted to each learner needs	Building participants' capacity to learn
Sharing learning materials created and/or researched by the learners	Individual + Collaborative	Providing self-created and used learning resources	Connecting information sources
Questionnaires and activities of self-reflection	Individual	Self-reflection and awareness of their learning needs	Developing participants' ability to see connections between concepts and ideas

The use of Open Educational Resources (OER) as content served as a starting point for encouraging participants to create and share their own learning outcomes and products. Data gathering tools were included as part of the learning activities proposed in the course in order to minimise their intrusiveness in the learning process (see Table 2).

Table 2. Study and course aims of the data gathering tools implemented as learning activities

Data type	Data gathering tool	Delivery format	Aim in the course	Aim in the study
Quantitative	SIL Questionnaire (Oxford, 1990)	Online questionnaire	Raising awareness of the learning behaviour and needs among the learners	To gain knowledge about the participants learning behaviours
Quantitative	FLCAS Questionnaire (Horwitz, Horwitz, & Cope, 1986)	Online questionnaire	Awareness of the emotional barriers the learners experience	To find relations between emotional barriers and the use of the internet resources
Qualitative	Forum participation	Forums on Moodle	Self-reflection of learning practices and difficulties	To gain insight into learners' habits and problems
Qualitative	Synchronous online discussion	Recorded video conference	To promote reflection on the topic of the week	Focus group to reach the deeper layers of the participants' behaviour and needs

2.3. Development

In this phase, the course curriculum was developed on the Moodle platform. The development process required to move back to the design phase quite often, revising activities and materials as the research team gained more knowledge and insight about the web 2.0 tools and to fine-tune activities and materials. Many OERs were used for the course and new ones were created under a creative commons license.

2.4. Implementation

We conducted a pre-pilot of the MOOC in July 2017 to test the course design in close-to-real settings to spot flaws and weaknesses. We announced the course in social media and 35 people answered the call and registered for the course. The pressure of a real audience and the feedback provided by the participants in combination with observation of their behaviour, materials use, and performance during the pre-pilot was key to complete the course development phase with a more realistic perspective.

2.5. Evaluation

Course evaluation was designed to include both formative and summative elements. Currently, only formative evaluations have been conducted in this pre-pilot study, which helped to enhance the content and instructional methods for the forthcoming pilot study. They also assured that data gathering tools were harmoniously integrated into the course and were adequate for addressing the research questions of the project.

3. Results and discussion

The first results from the pre-pilot study reveal that applying the ADDIE model for MOOC design can be challenging as it is addressed to anyone on the web. For instance, the collaborative environment created in the course and the tasks designed with such a purpose presented problems in terms of language barriers. Having an audience who is learning different languages limits the possibilities of peer to peer assessment. For this reason, some of the tasks needed redesign before the implementation in the pre-pilot and will need further adjustments for the pilot version of the course.

4. Conclusions

The tests and improvements of this first version of the MOOC show that the principles and theory used for course and research design are adequate for fulfilling the project design objectives. Putting into practice the course design has demonstrated that it is possible to design user-friendly content which includes data gathering tools and use data gathering tools as part of the content in a connectivist MOOC. However, it is still in its embryonic stage after the pre-pilot course implementation so its effectiveness to achieve the learning and research goals was not fully evaluated. The upcoming piloting will allow final adjustments for its final release.

5. Acknowledgements

The authors would like to thank David Alfter, Ph.D. student, University of Gothenburg, for bringing the team together and supporting the project in its initial phases.

References

Buckingham, D. (2007). Introducing identity. In D. Buckingham (Ed.), *Youth, identity, and digital media* (pp. 1-24). The MIT Press.

Davis, A. L. (2013). Using instructional design principles to develop effective information literacy instruction: the ADDIE model. *College & Research Libraries News, 74*(4), 205-207. https://doi.org/10.5860/crln.74.4.8934

Horwitz, E. K., Horwitz, M. B., & Cope, J. A. (1986). Foreign language classroom anxiety. *The Modern Language Journal, 70*(2), 125-132. https://doi.org/10.2307/327317

Oxford, R. (1990). Language learning strategies. In A. Burns & J. C. Richards (Eds), *The Cambridge guide to learning English as a second language* (pp. 81-90). Cambridge University Press.

Siemens, G. (2005). Connectivism: a learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning, 2*(1), 3-10.

Published by Research-publishing.net, a not-for-profit association
Contact: info@research-publishing.net

© 2018 by Editors (collective work)
© 2018 by Authors (individual work)

Future-proof CALL: language learning as exploration and encounters – short papers from EUROCALL 2018
Edited by Peppi Taalas, Juha Jalkanen, Linda Bradley, and Sylvie Thouësny

Publication date: 2018/12/08

Rights: the whole volume is published under the Attribution-NonCommercial-NoDerivatives International (CC BY-NC-ND) licence; **individual articles may have a different licence**. Under the CC BY-NC-ND licence, the volume is freely available online (https://doi.org/10.14705/rpnet.2018.26.9782490057221) 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 is 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. 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 theme by © 2018 Antti Myöhänen (antti.myohanen@gmail.com)
Cover layout by © 2018 Raphaël Savina (raphael@savina.net)
Drawings by © 2018 Linda Saukko-Rauta (linda@redanredan.fi)

ISBN13: 978-2-490057-22-1 (Ebook, PDF, colour)
ISBN13: 978-2-490057-23-8 (Ebook, EPUB, colour)
ISBN13: 978-2-490057-21-4 (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'.

British Library Cataloguing-in-Publication Data.
A cataloguing record for this book is available from the British Library.

Legal deposit, UK: British Library.
Legal deposit, France: Bibliothèque Nationale de France - Dépôt légal: Décembre 2018.