



**Guidelines**  
**for the Creation of Language MOOCs**

**Galway**

**2018**

## IO1 – Ebook. Guidelines for the Creation of Language MOOCs

The views expressed do not necessarily reflect the official position of the European Commission or any person acting on behalf of the Commission.

### **Authors**

Fallani Gerardo

La Grassa Matteo

Magnoni Francesca

McLoughlin Laura

Troncarelli Donatella

### **Cover and graphic design**

Stavroula Sokoli

### **MOVE-ME Partnership (<http://movemeproject.eu>)**

Università per Stranieri di Siena (IT)

National University of Ireland Galway (IR)

Open University (UK)

Institutul de Științe ale Educației (RO)

Computer Technology Institute and Press "Diophantus" (EL)

Federazione Nazionale Insegnanti Centro Iniziativa Per l'Europa (IT)



## Contents

1. Introduction	4
2. Objectives and theoretical framework	5
2.1 Objectives of the Move-Me project	5
2.2 The target audience	6
2.3 The theoretical framework of reference for the creation of MOOCs	9
3. Platform and Methodology	9
3.1 Platforms, LMS and MOOC types	10
3.2 Hybrid MOOCs: making the most of 'rigid' platforms	11
3.3 Conclusion	12
4. Content Organisation and Delivery Planning	13
4.1 Macro-objectives and Macro-structure	13
4.2 Micro-objectives and Micro-structure	15
4.3 Creating the MOOC	16
4.4 Conclusion	18
5. Participation in discussion boards and data management for analysis and evaluation	19
5.1 Evaluation and discussion boards	19
5.2. Using statistical data: background information	20
5.3 Working with <i>datasets</i>	21
BIBLIOGRAPHY	23

## 1. Introduction

These guidelines were produced as part of the *Move-Me* project, financed by the European Commission under the Erasmus+ framework.

The *Move-Me* project produced MOOCs for Academic English and Italian, aimed at university students taking part in mobility programmes and therefore needing to enhance their oral and written academic communication skills.

These Guidelines are a reflection on the lessons learnt during the production, organisation of content and implementation of the *Move-Me* MOOCs. They offer suggestions based on our experience for the realisation of future language MOOCs and might well be considered an integration of the LangMOOCs Toolkit ([www.langmooc.com](http://www.langmooc.com)) created by the Consortium formed by Active Citizen Partnership (Greece), Iberika Education Group GmbH (Germany), Dacorum Council for Voluntary Service (United Kingdom), the Norwegian University of Science and Technology (Norway), and CESIE (Italy).

Whilst the LangMOOCs Toolkit illustrates the necessary tools to develop a Language MOOC, our Guidelines consider methodological and theoretical issues and consider didactic and pedagogical approaches to language MOOCs and their implementation.

These Guidelines are the result of a collaborative effort between the Università per Stranieri di Siena (Unistrasi) and the National University of Ireland, Galway (NUI Galway). Chapters 2 and 5 were written by Gerardo Fallani, Matteo La Grassa and Donatella Troncarelli, while Chapter 3 and 4 were written by Dr Laura McLoughlin and Dr Francesca Magnoni (NUI Galway).

## 2. Objectives and theoretical framework

In this chapter:

- Objectives of the *Move-Me* project
- Identification of the target audience
- Theoretical framework

### 2.1 Objectives of the Move-Me project

Every year, thanks to the Erasmus Programme, thousands of students in Europe complete part of their university studies in another country using a second language they know at a B1/B2 level of competence. Many studies have highlighted the fact that competences in the common and general use of the language differ from the skills and knowledge required for academic communication and this has been confirmed by the needs analyses conducted by *Move-Me* partners on students taking part in mobility programmes. The lack of appropriate academic language competence can negatively impact student grades, completion times and, more generally, their ability to achieve a level of multilingualism that will enable them, as European citizens, to travel and work in a frictionless labour market.

According to the Common European Framework of Reference for Languages (2001), linguistic-communicative competence describes a multidimensional continuum, articulated in a number of levels that include the different skills and knowledge required to interact in various domains of linguistic use. The vertical progression of competence in one domain and the corresponding acquisition of increased communicative accuracy and effectiveness do not guarantee the same level of mastery in other domains of use. This is the case with many students in mobility who, despite having a good command of the second language and being able to interact fluently in daily communication, still have difficulties understanding long speeches – e.g. university lectures or study manuals characterised by complex syntactical structures as well as lexical choices and textual conventions not normally found in everyday communication.

The objectives of the *Move-Me* MOOCs were therefore the following:

- 1) to create a learning path aimed at developing linguistic competence in the academic domain by supporting learners in their acquisition of the knowledge and skills required to understand oral and written expository texts relating to specific disciplines;
- 2) to help learners to develop and refine the skills required to produce various types of academic texts (notes, summaries, theses, oral conversation) related to their discipline.

The next paragraph analyses in detail the needs of our target audience.

### 2.2 The target audience

Although, by definition, MOOCs are open to an undifferentiated audience and can potentially be followed freely by anyone regardless of their level of competence and previous knowledge of the topic, identifying a preferential target audience is nevertheless essential. For language MOOCs, the identification of a sociocultural and linguistic audience and its motivation and learning needs is a fundamental phase, a prerequisite that will influence all the methodological and implementation choices to be made. Thinking of developing a course suitable for an undifferentiated public is unrealistic and contrary to the indications of language education. These two variables can actually make a MOOC only suitable to a type of audience with specific characteristics and levels of linguistic and communicative competence. MOOC creators, therefore, must be aware of the context they operate in: on the one hand they need to contend with the total openness given by the nature of the course, on the other hand they should identify a specific audience and design the course taking into account its characteristics and needs. In the case of the *Move-Me* MOOCs, in order to limit the participation of an excessively generic public who may not possess the necessary skills to follow a course of this nature, promotional material was explicit and unequivocal about the intended aims and objectives.

The target audience of the *Move-Me* MOOCs consisted of university students participating in mobility programmes. Students who spend a study period abroad are immersed in an academic context that requires the development of communicative language skills and specific study skills.

Language courses provided by the language centres of the host universities and the courses offered in the countries of origin before the beginning of the study experience abroad are attended in large part by learners who still need to reach a level of independent linguistic and communicative competence (B1/B2). Consequently, it is not always possible to focus on discipline-specific domains.

## IO1 – Ebook. Guidelines for the Creation of Language MOOCs

The communicative interaction that takes place in this context and, more generally, the input that students will need to manage and the output they will have to produce are particularly complex. Achieving an adequate level of competence for interaction in contexts of everyday use does not in itself imply the ability to interact adequately in more formal contexts, which often present peculiar textual features.

The majority of the input presented during the *Move-Me* MOOCs falls under the category of technical-specialist language, and is therefore more complex than and rather distant from everyday communication. Registers presented to learners vary and include examples of very formal language (such as academic lectures and presentations) and other examples of average formality (typical of seminars or public speaking).

The following table summarises two of the most important needs that university learners have to meet during their academic career in Italy, relating to the frequency of lessons and to the preparation and conduct of exams.

<b>Communicative needs</b>	<b>Main text types involved</b>	<b>Main skills required</b>
Attending lectures	Formal, monodirectional talk	Formulating questions; answering questions; asking for explanations and insights; taking notes.
Preparing and sitting an exam	Written texts: study manuals; scientific articles; reports and booklets; slides. Oral texts: videos of lessons; exam questions.	Understanding expository texts on technical-specialist subjects with high levels of specialisation (study manuals) and medium-high levels of specialisation (slides; handouts). Answering questions on specific topics, presenting information and arguing. Knowing how to write summaries and construct mental maps based on the main information in a text; how to produce a thesis; how to prepare a presentation.

Problems related to language education of university students are still far from being solved, because while their training needs have now been identified and discussed in a great deal of recent scientific literature on these topics (Jafrancesco, Fragai and Fratter 2017; Mezzadri 2016), satisfactory solutions at implementation level are still hard to find. One of the problems is the fact that the majority of students enrolled in mobility programmes has not yet reached, at the beginning of that programme, the level of independent competence. Language courses at host universities are not always the answer as their timetable may overlap with that of other discipline-specific courses, the number of available hours may be limited, learners of different abilities and levels are sometimes mixed and as a consequence students may not progress significantly.

In order to overcome these structural limitations of classroom-based attendance, the use of new technologies currently plays a fundamental role. Online language courses, in fact, allow learners more autonomy in managing their own learning pace and facilitate access to various learning resources available on the Net. They also allow for the integration of self-learning with other forms of learning involving interaction with other students and experienced tutors.

The *Move-me* MOOCs were realised within this framework. As already mentioned, they are specifically addressed to university students who attend or intend to attend curricular courses in humanities, scientific, juridical or economic faculties.

The *Move-me* courses are not intended as substitutes for classroom-based courses, nor as an extension of the linguistic content already addressed in language courses. These MOOCs focus on the competences relating to *knowing how to learn* associated to university studies (e. g. taking notes; making a presentation, etc.) and propose learning paths aimed not so much at achieving purely linguistic objectives, but rather a more general development of primary skills (listening, speaking, reading and writing) with specific reference to the macro-area of academic education. Linguistic communicative competence was therefore addressed at the same time as the ability to learn how to learn in order to afford participants greater autonomy in language learning.

The format of the MOOC was chosen in order to reach the largest possible number of students in mobility programme and because it is designed for independent study.

### 2.3 The theoretical framework of reference for the creation of MOOCs

In online language teaching, the theoretical models and methodological approaches that can be followed are different. Generally speaking, e-learning platforms are well suited to become environments in which to experiment and support constructivist forms of learning. According to constructivist theory, knowledge is the result of the actions implemented by a learner when integrating new and old knowledge. In this active process, particular importance is given to social interaction and negotiation of meanings, with a teacher who is no longer the only knowledge dispenser, but mainly plays a supporting role. In this way a predominantly unidirectional and guiding vision of the teaching/learning process is overcome. More recently much discussion has centred on the connectivist theory (Siemens 2006), a *de facto* evolution of constructivism that emphasises the role played by new technologies in teaching.

In any case, both constructivism and connectivism provide for a dense interaction among peers and this exchange becomes the main driving force behind the construction of knowledge.

A MOOC, however, not only may have a higher number of learners than normal online courses, but also a varying and unpredictable spatial dislocation of participants and these aspects can affect the density and directionality of communication. We felt it was therefore appropriate to alternate discussion and comparison activities with other activities involving the independent use of materials and self-correction tests. Ultimately, this is a mixed theoretical model adopted with the intention of responding to potentially very different ways of using the course as well as to different learning styles.

## 3. Platform and Methodology<sup>1</sup>

In this chapter:

- Types of MOOCs
- Working with 'rigid' platforms
- Methodological choices

---

<sup>1</sup> Chapter 3 was written by Dr Laura McLoughlin and Dr Francesca Magnoni, NUI Galway

Once the objectives of the MOOC have been clearly defined and the theoretical framework established, the next aspect to consider is which platform is going to be used for its delivery. Far from being just a content management tool, the platform will greatly influence the methodology, the mode and level of interaction and the more practical aspects of content delivery. It is therefore important to establish at the very beginning which provider or system is going to be hosting the MOOC because, “while there are a lot of MOOC platforms and technologies available at the moment, and an ever-increasing collection of language courses on them, the actual freedom that a teacher has when designing a given course, and conceiving what resources, activities and tools should be used, is not always obvious” (Read 2015: 93).

### 3.1 Platforms, LMS and MOOC types

If there is great freedom in the choice of platform/LMS, then the theoretical framework will direct the selection depending on the type of MOOC that is going to be designed. If however the choice is dictated by external factors, for example institutional policy or the need for grading and evaluation, then methodological approaches may well need to be adjusted accordingly. So, given your objectives, you should consider:

1. what type of MOOC you wish to deliver
2. how much freedom you have in the selection of the platform and/or LMS
3. given the platform/LMS at your disposal, what type of MOOC you can deliver

As widely known, MOOC types have been traditionally broadly divided into xMOOCs and cMOOCs. The former usually follow a rather rigidly structured platform where the use of external links and the types of exercises available is limited; as Mackness states: “xMOOCs are convened on a designated platform; they may offer alternative sites such as Facebook or Twitter, but the course runs principally on the main platform, where interaction takes place in discussion forums” (Mackness 2013). In xMOOCs, resources and content tend to be centralised, grading is mainly automated and the learning path follows a linear progression consistent with final evaluation. The most popular platforms are currently Coursera, Udacity, edX and FutureLearn.

cMOOCs instead are designed on a connectivist approach “in the sense that they do not run on a single website or with a centralized core of content; the content in cMOOCs is networked. [...] cMOOCs are based on networked cooperation rather than group collaboration” (ibidem, 2013). Learners are encouraged to share resources, engage in conversation and build a community culture.

Their learning derives from their participation in activities and from interaction, rather than from a body of content.

A cMOOC approach could be interesting in the context of advanced learners and specialist users (trainee translators for example) with a good degree of digital skills (or willing to acquire them in preparation for the course). If you feel that a cMOOC is more appropriate for your goals, then a LMS such as Moodle or Blackboard is probably more suitable to the purpose as it allows you to have as many external links as you wish and participants can access any amount of external resources and social networks as they deem necessary. The platforms mentioned earlier do not allow for the loose structure of a real connectivist MOOC as the number of external links and tools that can be embedded in these MOOCs or shared by participants is limited.

In these Guidelines we concentrate on language MOOCs delivered through dedicated, structured platforms. The restrictions that they impose have a considerable impact on language courses where learners necessitate of an array of different tools in order to notice, practice and acquire structures and vocabulary. As a consequence, language MOOCs in particular have often adopted a hybrid approach in an attempt to bring some connectivist features into more rigid delivery environments.

### 3.2 Hybrid MOOCs: making the most of 'rigid' platforms

A 'rigid' platform should not discourage the creation of a language MOOC. Careful planning in terms of course design and content development will help you get around these difficulties. For example, you could:

1. consider an inductive approach
2. design Task-based activities
3. include interaction as part of the content, not as an add-on.

The *English for Academic Purposes MOOC* created as part of the Move-Me project was delivered through the FutureLearn platform, which offers limited types of in-built exercises and only allows for a small number of external links in any given week. Our MOOC, therefore, took the shape of an xMOOC from a structural point of view but interaction was an integral part of the content and both the type of input presented in the activities and the content design follow an *inductive way* of challenging the learners through a Task-Based Language Teaching (TBLT) approach (Ellis 2003, 2005, 2009), which Ellis summarises as follows (2009: 223):

## IO1 – Ebook. Guidelines for the Creation of Language MOOCs

1. The primary focus should be on ‘meaning’ (by which is meant that learners should be mainly concerned with processing the semantic and pragmatic meaning of utterances).
2. There should be some kind of ‘gap’ (i.e. a need to convey information, to express an opinion or to infer meaning).
3. Learners should largely have to rely on their own resources (linguistic and non-linguistic) in order to complete the activity.
4. There is a clearly defined outcome other than the use of language (i.e. the language serves as the means for achieving the outcome, not as an end in its own right).

In addition, following a *participative approach*, content should be developed in such a way that *communication* and *meaningful interaction* are inbuilt elements of the content itself, not just an add-on or optional step. The *participative approach* is an excellent conceptual framework of reference for online language courses where the role of the learners is changing: they are no longer just recipients of the content but also sources and multipliers of knowledge, thus vehicle of learning in peer-to-peer and collaborative approach contexts. Indeed one of the biggest challenges of a *participative approach* is to plan and design inputs that will maximise the opportunities for meaningful interaction among peers.

### 3.3 Conclusion

The paradigms in e-learning language courses are strictly dependent on the actual structure of the platforms used for the delivery of their content. The way information can be organised and delivered influence enormously the pedagogical choices to make

Specifically, for foreign language courses usually an active participation in the learning process provides the basic scaffolding for consistently building knowledge and developing learning strategies and skills, and therefore awareness of one’s own learning journey. McLoughlin and Lee state: “In such a digital world, with high connectivity and ubiquitous, demand driven learning, there is a need to expand our vision of pedagogy so that learners are active participants or co-producers rather than passive consumers of content, and so that learning is a participatory, social process supporting personal life goals and needs.” (McLoughlin, C. & Lee, M. J. W. (2007: 664).

## 4. Content Organisation and Delivery Planning<sup>2</sup>

In this chapter:

- Defining structure and objectives
- Organising the content with a step-by-step planner
- Time required to create a MOOC

Whether online or face to face, courses normally follow a linear structure helping participants progress from A to B to C and so on within a predefined path and set of objectives. This is especially true of language courses where acquisition of certain lexical, grammatical and syntactical elements is essential in order to progress to the next stage, which is one of the reasons why xMOOCs and hybrid MOOCs seem more suitable for language learning, at least at beginners and intermediate levels. In any case, most online courses start “on paper”: sketch a blueprint of your course: your starting point (your participants’ entry level), your end goal, how you will get there and how long it will take you.

### 4.1 Macro-objectives and Macro-structure

Whilst careful planning is required when preparing any course, this is absolutely essential when creating a MOOC. You should:

1. clearly define your macro-objectives
2. adopt an approach compatible with the platform and technology available to you
3. design the macro-structure of your MOOC

We call macro-objectives the overall objectives of the course, i.e. the expected learning outcomes on completion of the course. We call macro-structure the organisation of the whole MOOC: the total number of weeks, the inclusion (if considered necessary) of an introductory week and a wrap-up week, the division of content into weeks of broadly similar length.

Remember that these objectives will need to be communicated to would-be participants, who will select your course on the basis of its expected learning outcomes. Write jargon-free, unambiguous objectives that will explain what participants will be able to do in terms of observable behaviour.

---

<sup>2</sup> Chapter 4 was written by Dr Laura McLoughlin and Dr Francesca Magnoni, NUI Galway

Definition of macro-objectives and methodological choices at planning stage can reduce the negative impact of restrictions imposed by individual platforms. Consider your objectives carefully: as well as catering for lower-level outcomes such as gaining factual knowledge, MOOCs should also (or mainly) aim towards higher-level outcomes, such as learning to learn and learning to apply knowledge. MOOCs tend to focus on the learning process rather than on quantifiable acquisition so the promotion of awareness of personal learning styles and cognitive (and acquisition) processes is essential, especially when dealing with second/foreign language learning. The participative approach can help to achieve this through steps dedicated to shared reflection and manipulation of input.

Recent research has concentrated on informal learning in online contexts and its effectiveness especially for language learning courses, and with regards to MOOCs researchers have considered “the possibilities they hold for developing language competences, especially the productive and interactive ones, arguably go way beyond what is available in small student-number online courses” (Read 2015: 93). Language MOOCs therefore should exploit the opportunities afforded by the informal learning environment typical of massive online courses and be structured around steps that encourage participants not only to play a big part in their own learning process but also become a source of learning and knowledge for their peers.

Get to know the platform you are going to use. It’s a good idea to follow another MOOC on the same platform for example. Thorough knowledge of the vehicle used to deliver content, meet objectives and motivate participants is key: having clear what needs to be acquired and how this can be delivered before the planning stage starts will allow you to adopt methodological approaches suitable to and compatible with the available technology because specifically designed for and built around that technology. This familiarisation stage takes time (when one wants to get right down to the actual MOOC), but it also saves time later: there is no point designing steps around certain types of interactions that are not allowed by the platform, for example interactions requiring learners to upload and share material.

In order to maximise the different features of MOOC platforms compared to VLEs, we need to move away from a mechanistic view of ICT, primarily focused on technical aspects and concentrate instead on content, objectives and participants. Whilst content delivered through a VLE or LMS and a MOOC platform might be broadly similar, participants and objectives and of course platforms used are likely to differ considerably (McLoughlin &

Magnoni, forthcoming. *New Paradigms in Online Learning: Comparing FutureLearn and Blackboard platforms for online language courses*).

Unlike VLEs and LMSs, MOOC platforms are likely to have specific guidelines on how content should be presented, the length (in number of steps) of each week, video/image uploads and so on, including fonts to be used, text colour, table formatting, etc. If certain modes of content presentations are not possible, you may need to rethink a step you had planned so it is advisable to study the guidelines before the content design stage. For example, if drag&drop tools are not allowed, then a step originally thought as drag&drop will need redesigning (perhaps using a drop down menu or an additional recall quiz), but the mechanics of the step change and this may well impact on the sequence of activities. Tools in FutureLearn are limited True/False, MCQ and Cloze tests, although integration with other tools such as Mentimeter, or Typeform is also possible to facilitate polls and surveys. The virtual bulletin board Padlet can be used to allow participants to share links and certain files and, importantly, is the only way to create and direct participants towards groups where issues of particular interest to them are being discussed.

Once you have established your macro-objectives and decided on your didactical approach, it's time to draw the macro-structure of the course. How many weeks will it last? How many hours per week are participants expected to spend on the MOOC? Should there be a separate Introductory Week as well as a Conclusion or Wrap-up Week? What content<sup>3</sup> should be covered in each week?

Language MOOCs are normally structured over 4-6 weeks, however an introductory Dutch course by the University of Groningen (<https://www.futurelearn.com/courses/dutch>) is only three weeks and has been very successful. Online learning requires a considerable commitment on the part of the learners and learning fatigue is likely to settle in half way through a longer course. Six weeks is in fact a long time to spend online. Consider shorter courses if possible, maybe dividing the content into two separate MOOCs: Part 1 and Part 2. This will give participants a sense of accomplishment and should motivate them to continue.

### 4.2 Micro-objectives and Micro-structure

Now that you have a clear overall idea of how your MOOC is going to pan out, you can plan the details. You should

---

<sup>3</sup> "Content" is used here in a broad sense to include both topics and the skills and abilities at the core of each week of the MOOC.

## IO1 – Ebook. Guidelines for the Creation of Language MOOCs

1. define your micro-objectives
2. consider how to progress from lower to higher thinking skills
3. design the micro-structure of the MOOC

We call micro-objectives the objectives (or learning outcomes) of each single week of the MOOC. We call micro-structure the internal structure of each week of the MOOC.

Micro-objectives will also be communicated to participants at the beginning of each week. They may also appear in the detailed description of the MOOC that would-be participants find online. They need to be consistent with the macro-objectives both in style and in terms of expected achievements.

Each Week will be made up of a number of steps that will help your participants to achieve those objectives. Since language MOOCs tend to focus on skills more so than on factual content, organising the steps along a progression line that goes from lower order skills to higher order skills can be particularly beneficial. (See Anderson, L. W. and Krathwohl, D. R., et al Eds. 2001. *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Allyn & Bacon. Boston, MA: Pearson Education Group).

This in turn will help you to define the micro-structure of the week: each week will be segmented into meaningful subsections that progress towards evaluation of acquired knowledge and creation (of communicative acts).

You should now prepare your language content. Gather texts, videos, images, etc. and assign them to individual sections.

### 4.3 Creating the MOOC

The preparatory stage is now complete and it's time to create the actual MOOC. An excel file with information on each single step will help you to build up each week, ensure that the micro-structure is consistent across all the weeks of the MOOC, plan meaningful sequencing of steps and calculate the time each step will take to complete. Your platform provider may require a copy of this (or a similar) file for approval. This is a very useful stage as it will allow you to get a feel for the whole MOOC before you start uploading it to the platform. So you should:

1. prepare a step-by-step plan of your content delivery
2. ensure consistency of micro-structures

## 3. upload to the platform

Fig. 1 shows an example of step-by-step planning. It is a draft of Section 1 (Introduction) of Week 1 of the Move-Me MOOC *English for Academic Purposes*. It numbers the steps, gives them a title (a working title in this draft) and explains what format the step is going to take on the platform (article -i.e. text-, image, video, discussion, exercise and so on) and the estimated time for its delivery and completion.

Section	Step Number	How?	Step Title	What? What is being covered conceptually by the step	How/ more details / TITLE	Delivery time	Learning time	
Introduction	1.1 (steps uploaded to platform are highlighted)	IMAGE (pics of authors) + Discussion	Let's get to know each other	Welcome and introduction of the tutors	Image with photos of all authors followed by introduction of each author ( few lines)	3 mins	5mins	
	1.2	article + Pdf to download	Learning outcomes of the week	Presentation of the goals of the week	Listing and explaining goals of week 1	1min	5mins	
	1.3	Discussion	Introduce yourself to other learners	Building a learning community		1min	10mins	
	1.4	Exercise	External link: <a href="https://www.typeform.com/">https://www.typeform.com/</a>	Why are you taking this course?	Explaining why they are following this course	survey/external link Submit & View the result of the pool (other learners' reasons to take this course)/external link	1min	5mins
				Survey Results		View the result of the pool (other learners' reasons to take this course)/external link	1min	10mins
	1.5 (1.6 Combined with Step 1.3)	Discussion	What do you expect from the course	Reflecting on and sharing own expectations		1min	10mins	
1.6	Article	Structure and objectives of this online course	What will be presented each week. Objectives of the course	Lists with bullet points. + refer to Certificate	3 mins	5 mins		

Fig. 1 Step-by-step planning of English for Academic Purposes

We aimed for 24-26 steps per week. This file helped us to realise that in some cases we had too much material and were creating too many step: some steps were repetitive and could be merged with others. It was also easy to see if there was consistency in the micro-structures of each week (i.e., if we had maintained a balance among the various sections of in terms of both number and type of steps) and also and adequate variety of learning inputs.

After the step-by-step file is completed for each week, reviewed by the team members and, if required, approved by the provider, you can begin to upload your steps to the platform. Our experience has been that, even though the plan was reviewed and revised, changes still occurred at the uploading stage as some steps did not work well in practice. So be prepared to be flexible.

Creating a MOOC is a considerable methodological and implementational challenge that requires a heavy investment in terms of time and finances. It is a team effort: make sure roles and tasks are clearly defined before you start in order to avoid misunderstandings and frustration at a later stage. An understanding of online dynamics is necessary and at least some members of the team should

have experience of online learning environments. It is difficult to quantify the amount of time necessary to create a massive online course. It will depend of course on the material you have, the need to create and/or source videos, audios, images, texts with appropriate copyright clearance and the types of polls, exercises and quizzes you insert.

Assuming this work is done, as a rough guideline, allow at least:

- 1 week to establish macro-objectives and macro-structure;
- 2 weeks to develop micro-objectives and micro-structures;
- 2 weeks for the step-by-step plan of each week of the course.

Ideally you should have this first stage completed at least seven weeks before the start of the MOOC to give your team (and the provider, if required) time to review the plan and then make any necessary modifications (allow for one more week unless there are major changes).

Start uploading material to the platform at least 5 weeks before the beginning of the MOOC. If all the material you have is satisfactorily sequenced in your step-by-step plan, then this phase shouldn't take too much time. However, it is likely that some steps will not look good once they are uploaded and that may well trigger a knock-on effect on subsequent steps. Be prepared to spend up to 1 week uploading each week of the MOOC (but this can be shared among team members).

Get an external person to try the MOOC before its launch. It is good to have an outsider's view.

### 4.4 Conclusion

Content organisation and delivery planning are extremely important steps in the creation of any MOOC but for LMOOCs that use the target language as vehicular language, these preliminary phases represent the core of the entire effort as they help to organise the content in a manner that will ensure internal textual consistency and coherence, which should also be reflected in a correspondence between Macro- and Micro-objectives and their relative structure, as mentioned in §4.2. This part of MOOC planning facilitates the creation and ordering of individual activities in a way that gradually combines lower-level outcomes with higher-level ones, allowing learners to develop both their declarative knowledge - what we know about a given topic - and procedural knowledge - what we know how to do (Chamot & O'Malley, 1987: 231, 233).

## 5. Participation in discussion boards and data management for analysis and evaluation

In this chapter:

- Evaluation in MOOCs: The use of discussion boards
- How to track online learning
- How to use statistical data

### 5.1 Evaluation and discussion boards

Evaluation in e-learning is a contested issue that has generated heated discussions but ultimately no definite solutions. One of the main difficulties is the considerable relevance of the asynchronous dimension -typical of e-learning-, a mode of communication that makes progress control rather problematic. While delivering a classroom-based lesson, the teacher can use different types of comprehension checks and quickly assess the level of understanding of the class even through non-verbal signals such as body language, facial expressions and so on. These strategies of classroom management and evaluation are inconceivable in e-learning, where communication takes place almost entirely in written form, on forums. If testing activities are necessary for evaluation purposes, e-learning can rely on closed-question tests but these do not necessarily provide reliable information on learners' progress (learners could, for example, consult other sources and resources, ask other people, employ more time than allowed etc.).

In the case of a MOOC, the high number of participants poses an additional problem as the tutor cannot carry out a qualitative evaluation of all learners' posts in the discussion boards nor answer individual requests for clarification or in-depth explanations. It is important, therefore to structure interaction on discussion boards beforehand, to some extent at least and as far as possible. For example, micro tasks could be given, to be carried out either autonomously or collaboratively. The density of possible explanatory interventions on forums obviously depends on the number of active students and the number of tutors in the course. In general, however, it can be said that the better the task is organised, the less is the need for the tutor to intervene directly. Moreover, much of the interaction will take place among peers: since the number of participants is potentially very large, it is likely that solution to a given problem or answers to requests for clarification or explanation will come directly from the learning community. The tutor will still need to read through the posts (which may well be quite short in the case of a language MOOC), locate the topics of discussion and see if any issues arising from the course or the discussion are somehow resolved. If there are open

questions, the tutor can then intervene and answer them. In other instances, the tutor can intervene to signal approval (for example with Likes) for or otherwise comment on poignant posts. In any case, it is important, first and foremost, that learners have the perception of being able to interact with an experienced tutor, who reads what they write.

In the following paragraphs we will examine how the data retrieved from a MOOC platform (including active participation in discussion boards) can be used for analytical purposes.

### 5.2. Using statistical data: background information

In e-learning, monitoring and evaluation derived their first model from the production of materials with the SCORM (Sharable Content Object Reference Model) protocol. SCORM-compliant teaching materials, administered through a Learning Management System (LMS), were, for years, all that could be monitored and evaluated. The limitations of this approach, as it has been unanimously acknowledged, were many, the main being the fact that in this way it was possible to trace, and therefore monitor and evaluate, only the completion of didactic activities (the score or pass/fail status) and the time spent learning.

Advanced Distributed Learning (ADL), the US agency that served as an international reference point for the adoption and release of the SCORM protocol, soon felt the need to go beyond this rigid framework. In 2008 it launched a collection of *white papers* with which it was looking for what soon became known as the *next generation* SCORM. At first researchers found a fundamental point of arrival in the development of the TinCan API protocol (later known as Experience API – or more simply xAPI). In this way, it became possible to monitor training activities in terms of *experiential statements* (xAPI statements), i.e., related to learning experiences. xAPI statements are structured as noun, verb and objects: "I did this", namely a subject (agent, *actor*), a verb (action) and an object (activity/place – where place means both the URL and the physical place where the activity, is carried out). It is in this context *activity providers* are the devices in which educational activities take place, or through which they are delivered (e. g. the FutureLearn platform, or even a CMS such as WordPress, a social platform such as Facebook, apps such as Duolingo or Aurasma etc.). The learners therefore become *activity consumers*.

The new protocol establishes *Learning Record Stores* (LRS): databases for recording the data *left* by the learners, where it is possible to detail the results of any teaching activity – even if not performed in an LMS. In other words, we have here a more complete control over contents and activities, free of the known limitations imposed by the technological tool. Thus, all those activities that can be carried out on single or multiple mobile devices (computers/mobiles), such as games, simulations

and all the informal learning, including performances and experiences in the real world, as well as other forms of interactive, *blended*, adaptive learning, become part of online learning. Of particular interest to us here are interested in the work carried out in the tests (quizzes), the exercises carried out on the Net (e. g. on Padlet) and – most importantly, for us – the interactions in the discussion boards.

The generational shift from SCORM to xAPI provides a solid foundation for the concept, not actually new, of learning experience. Thus, from the didactic material (regarded as a product) to the lesson (regarded as a service), we arrived at the framework idea of *didactic experience*, which is consistent with those forms of self-learning that e-learning actually lends itself to.

Beyond the quizzes and the various *assignments* (tasks to be done on Padlet etc.), the vast majority of the didactic interactions that took place in these MOOCs occurred in the discussion boards. These interactions, as can be expected, do not have the slightest *attribute*, or requirement, to be SCORM compliant. However, from these data it is possible to obtain indications on the learning experience that has taken place in these MOOCs.

### 5.3 Working with *datasets*

An element of extreme interest, made available by FutureLearn, is the presence of a high wealth of statistical data, organised in *datasets*, which can be analysed with state-of-the-art techniques and methodologies. We are referring to the possibility, through the use of R software, to generate, among other things, reports on the activities carried out by the learners, on their degree of participation in relation to the steps of the project and the weekly frequency of the work, as well as to the absolute numbers and percentages relating to participation and completion of the activities.

It is however worth mentioning that there is also the possibility of obtaining a refined, granular analysis (and report) of the various types of administered quizzes. To give just a few examples, we were able to analyse the data according to the Rasch method, in order to correlate learners' skills to the difficulty of the task. In addition, we found the characteristic curve of the items (ICCs) to highlight the probability of a correct response as a function of personal competence, quartile analysis, etc.

The availability of data sets (*dataframes*) concerning the work done in the discussion boards seems particularly useful. These sets recorded participants' comments organised in terms of both steps and dates, the number of likes and, consequently, the degree of popularity of individual comments. In addition, it is also possible to perform word counts on these records as well as further *data mining* and in particular *text mining*.

The possibilities of monitoring and extracting data, both for evaluation and subsequent research and re-elaboration, as it can easily be guessed, are many and varied. The same datasets can be exported in text format and in CSV (and therefore also to a spreadsheet – e. g. to MS Excel), and from here they can be converted into xAPI statements. In other words, since formats such as CSV allow us to organize records in columns and rows, the data streams related to the activities can be easily transformed into experiential statements that can then be sent to a Learning Record Store.

Finally, we would like to discuss the reuse of the material produced within the *Move-Me* project, both by educational planners and learners. Materials created by the educators have been disseminated in the form of *Open Educational Resources* (OER) and is available at <http://movemeproject.eu/it/resources>.

We should mention that clearly the FutureLearn platform and even the CMS with which the project website (WordPress) has been created are *activity providers* themselves, i.e. devices capable of providing xAPI statements to a connected LRS. With respect to the above, it should be pointed out that the repository does not have (and could not have, by definition) a space dedicated to interaction. It goes without saying that – provided the team has the appropriate skills – with the same CMS, WordPress, as well as other equivalent technology (Drupal, Joomla, MyCMS etc. –to name but a few), it is possible to realise MOOCs with similar features to those in FutureLearn. What matters, of course, is having an appropriate methodological framework and space (or spaces) for significant interactions among learners, as well as the possibility of collecting data and sending them to an LRS in the form of xAPI statements for monitoring, evaluation, re-elaboration and more generally research – without forgetting *text mining*. On the other hand, subject to these priorities – namely, having available data on learning experiences and texts to analyse – the same approach can be applied to other LMS, such as Moodle, Canvas, Blackboard, Schoology, Sakai etc.

## BIBLIOGRAPHY

Chamot, U.A., & O'Malley, J. M. (1987). *The Cognitive Academic Language Learning Approach: A Bridge to the Mainstream* Author(s). TESOL Quarterly, Vol. 21, No. 2 (Jun. 1987), pp. 227-249. Stable URL: <http://www.jstor.org/stable/3586733>. (Accessed 13-10-2017).

Cormier, D. (2008). *The CCK08 MOOC–Connectivism course, 1/4 way*. Dave's Educational Blog. <http://davecormier.com/edblog/2008/10/02/the-cck08-mooc-connectivism-course-14-way/> 2008 (Accessed 19-02-2018).

Cormier, Dave, & Siemens, G. (2010). *Through the open door: open courses as research, learning, and engagement*. EDUCAUSE Review, 45(4), 30–39.

Downes, S. (2007). *Learning networks in practice*. NRC Publication Archive <http://nparc.cisti-icist.nrc-cnrc.gc.ca/eng/view/accepted/?id=fa5f5f4d-b6c8-4dac-ab6e-49b75570f988> (Accessed 19-02-2018).

Downes, S. (2008). *Places to go: Connectivism & connective knowledge*. Innovate: Journal of Online Education, 5(1). <http://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1037&context=innovate> (Accessed 20-02-2018).

Downes, S. (2010). *New Technology Supporting Informal Learning*. Journal of Emerging Technologies in Web Intelligence, 2(1), 27–33.

Ellis, R. (2003). *Task-based language learning and teaching*. Oxford: Oxford University Press.

Ellis, R. (2005). *Planning and task-performance in a second language*. Amsterdam: Benjamins. —, H. Basturkmen.

Ellis, Rod (2009). *Task-based language teaching: sorting out the misunderstandings* in International Journal of Applied Linguistics, Vol. 19 n. 3 (221 – 246).

Jafrancesco, E., Fragai F., Fratter I. (2017). *Italiano L2 all'università. Profili, bisogni e competenze degli studenti stranieri*. Aracne, Roma.

McLoughlin, C. & Lee, M. J. W. (2007). *Social software and participatory learning: Pedagogical choices with technology affordances in the Web 2.0 era*. In *ICT: Providing choices for learners and learning*. Proceedings ascilite Singapore 2007. <http://www.ascilite.org.au/conferences/singapore07/procs/mcloughlin.pdf> (Accessed 19-02-2018).

Mezzadri, M. (2016). *Studiare italiano all'università. Prospettive e strumenti*. Loescher, Milano.

Mackness, J. (2013). *cMOOCs and xMOOCs – key differences*. <https://jennymackness.wordpress.com/2013/10/22/cmooocs-and-xmooocs-key-differences/> (Accessed 19-02-2018).

Read, T. (2015). *The Architectonics of Language MOOCs in Languae MOOCs – Providing Learning, Transcending Boundaries*, Martin-Monje, E., Bárcena E. (Eds) <https://www.degruyter.com/downloadpdf/books/9783110422504/9783110422504.6/9783110422504.6.pdf> 91-105. (Accessed 19-02-2018).

Weller, M. (2006). *VLE 2.0 and future directions in learning environments*. In R. Philip, A Voerman & J. Dalziel (Eds.), *Proceedings of the First International LAMS Conference 2006: Designing the Future of Learning* (pp99-106). 6-8 December 2006, Sydney: LAMS Foundation. <http://lamsfoundation.org/lams2006/papers.htm> (Accessed 20-02-2018).