# The Role of Activeness for Potentiating Learning in LMOOCs for Vulnerable Groups

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## ABSTRACT

In this article the authors present a new concept, *activeness*, as a dynamic psychological and cognitive state of effective engaged language learning. It is defined in terms of *investment*, *integration* and *performance*, and empowers vulnerable students to exercise control of their learning and progress based on their needs and desired outcomes. It is argued that activeness has a double didactic and linguistic dimension, implemented as a design feature in course materials and activities, and more importantly, promoted in forum communication. Therefore, participating in a strategically designed and scaffolded inclusive LMOOC can serve the triple purpose of enabling more effective target language learning, empowering vulnerable learners, and developing student potential to become engaged members of the language learning community. This engagement is arguably an important step towards doing the same in the real world. A study is presented of the second edition of an LMOOC on Spanish for immediate needs for vulnerable groups to explore the ways in which activeness was incorporated into the course and the effects it had. This research was conducted following a mixed-method approach which involved the platform's analytics, forum messages, pre- and post-questionnaires, and course observation. Evidence is provided of the progressive presence of activeness across different linguistic levels and the effect it had on students' satisfaction, course completion, and linguistic interaction. The results from this LMOOC provide evidence that it is possible to create a supportive online environment that meets the learning needs of vulnerable groups.

# 1. INTRODUCTION

Vulnerable educational groups can be defined as those at risk of exclusion from relevant teaching and learning (de Waard et al. 2014). One of the common problems they suffer from, however heterogeneous they may be, is that of exclusion from the community (Nusbaum 2013) and active participation therein. A lack of competence in the language used there is clearly a factor. There is a body of literature about different approaches to helping vulnerable groups overcome such limitations (e.g., citizenship [Wearing 2011]). Education in general has been identified as a major catalyst for the development of their full potential as members of society (Schreiber-Barsch 2018), as reflected by the fourth of the United Nations Sustainable Development Goals, 'Quality education'. Learning a language brings a myriad of benefits independently of how it takes place. It enables people to connect with other students, engage in significant interpersonal interaction, and share their existential thoughts and emotions, as a key step towards becoming more integrated and valuable in society (Yates 2011).

The availability of low-cost technological devices together with Internet access has opened up the possibility of online language learning (Godwin-Jones 2018). Open and Distance Learning (ODL) arguably addresses this demand, where massive open online courses (MOOCs) have provided the most promising results to date (Sallam, Martín-Monje & Li 2020). Language MOOCs (LMOOCs; Martín-Monje & Barcena 2014) have existed for almost a decade and have been designed and developed to cover a large number of languages and applied to the teaching and learning of most of the competences and skills they involve (Sallam, Martín-Monje & Li 2020). Some LMOOCs specifically aim at the social inclusion and employability of displaced people, namely refugees and migrants (Read, Sedano & Barcena 2018).

The research presented in this paper comes from the experience of collaborating with refugees (either directly obtained by the authors or as reported by support staff from relevant NGOs) and observing how these groups participate in the formative process of learning a second language. The authors build upon previous research on LMOOCs (focussing on the role of inclusive language in potentiating student participation, progress, and learning in LMOOCs) to explore the conceptual area of inclusion for vulnerable groups and define a new concept in this field, namely *activeness*. Subsequently, after a contextualisation of the work in the literature, a research question is presented that motivates the study of an LMOOC where activeness was incorporated as a key part of the instructional design, development and deployment processes. An analysis of the results of this course is presented and some conclusions are drawn about activeness in LMOOCs for vulnerable groups.

# 2. THE THEORETICAL FOUNDATIONS OF ACTIVENESS

Constructivism is a common approach used for language teaching and learning and uses student-centred strategies because they help learners develop critical thinking and collaboration skills in participative environments (Suhendi 2018). Within this approach, considerable research has been undertaken on how second language acquisition takes place (Aimin 2013; Lantolf, Thorne & Poehner 2015) and the role technology can have in this process (Marzouki, Idrissi & Bennani 2017).

The application of a learner-centred approach in the language classroom involves several linguistic, psychological and cognitive specificities on the part of the learner that need to be addressed (Dávila 2017). Firstly, learner diversity is reflected in the unique subset of language-specific knowledge (e.g., vocabulary, oral comprehension), strengths and weaknesses of each member within a group. Secondly, for many reasons (e.g., innate cognitive ability for languages, plurilingualism, strong metacognitive skills), people acquire the language under study (and the various processes and capabilities that make up its use) at very different rates. Thirdly, verbal communication requires the application of various types of discrete knowledge units and combinatorial rules (e.g., words and grammar), which some learners prefer to *learn* in an explicit and highly structured fashion, focussing on grammar, vocabulary, etc., while others prefer to acquire them implicitly, imitating model examples, or combine both approaches to fit their own learning style. Fourthly, language use is eminently skill-based, for "it involves putting into practice an intricate array of receptive, productive and interactive verbal (and non-verbal) functional capabilities" (Martín-Monje & Barcena 2014: 2). Thus, mastering a language presupposes abundant authentic interaction and practice. Apart from the qualitative and

quantitative shortcomings of the classroom-and-peer scenario to this end, not all learners react positively to attempting face-to-face interpersonal communication in a second language. High anxiety levels can hinder learning and cause academic failure (Marcos-Llinás & Garau 2009; Barkanyi 2021). Technology can arguably assist in the individualization of the language learning process, enabling the learners to gain the necessary autonomy for their own individual strengths and weaknesses. They can also adapt the general syllabi to their goals, needs and interests or conduct significant explorations, while the teacher closely monitors and scaffolds the process, providing encouragement, assistance, feedback, and evaluation, as needed (Compton 2009). Scaffolding is referred to here as a temporary support that diminishes over time as it becomes unnecessary (cf. van de Pol, Volman & Beishuizen 2010).

Constructivism has been identified above as a common and appropriate approach for language learning, with emphasis given to a learner-centred approach. It is, therefore, possible to move on and consider specific problems that students from vulnerable educational groups have in online language courses, to look at what LMOOCs have to offer for them, and consider what needs to be included in such courses to make them effective. This will lead to the definition of activeness, which can be applied in an LMOOC to empower vulnerable students to maximise the development of their target language knowledge and skills.

## 2.1. LEARNER VULNERABILITY IN ONLINE LANGUAGE LEARNING

An analysis of online language learning reveals that a combination of five factors can increase/decrease educational vulnerability:

- Firstly, in terms of **technology**, data reveal that 43% of the world's homes do not have access to the Internet,[1] and over 20% lack access to a mobile phone (e.g., Silver et al. 2019).

- Secondly, even if people have access to a technological device, they need to have the **digital literacy** (Traxler, Barcena & Read 2019) and motivation to use it for learning purposes. Data show that people use their devices for email, games, social networking, communication, getting information, etc. (e.g., Shimray & Ramaiah 2019), but not specifically for learning.

- Thirdly, a related consideration is that of the learners' **technology-based learning culture**, and their readiness to accept new scenarios involving tablets and mobile phones as language learning infrastructural tools, software as tutors/assistants, peers as monitors, and autonomous collective projects as evaluable course work (Traxler, Barcena & Read 2019).

- Fourthly, many language learners lack the **skills** needed to succeed in the knowledge society (e.g., inquisitive predisposition, introspection techniques for self-regulation, critical skills, creativity) (Traxler, Barcena & Read 2019).

- Fifthly, among the **linguistic variables** that can support/hinder the learning of a new language is the number of languages already spoken by the learner (approx. 40% of the world's population is monolingual; Eurobarometer 2006). Furthermore, their success in the task varies greatly according, for example, to the proximity of the target language with respect to the mother tongue (e.g., Basque for Spanish natives, where the former language is spoken by a lot of people in the Basque Country, an autonomous community in northern Spain), other sociological, affective, and practical considerations (Tuncer 2009), and the number of similar languages already spoken by them.

Grouping existential, technological, educational, linguistic, etc., learner conditions and circumstances can provide a starting point for addressing vulnerability by applying a common approach for teaching/learning languages. While these groups are highly heterogeneous (Cortes 2004), the authors here argue that course designers can focus on potentiating what such groups have in common and avoiding what separates them.

## 2.2. LMOOCS FOR VULNERABLE GROUPS

When LMOOCs appeared, there was some controversy regarding whether a second language could be learnt with this type of course (Vorobyeva 2018), similar to the type of opposition

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1    *https://en.unesco.org/news/global-education-coalition-facilitates-free-internet-access-distance-education-several*.

that technology-based language learning experienced in its day. Time has shown that languages are roughly halfway through the spectrum of knowledge and skills that are suitable for study in this type of course: LMOOCs have proliferated and some of them are amongst the most numerous and best rated open courses (e.g., Basic Spanish 1: Getting Started).[2] A study undertaken in 2017 identified the existence of 85 LMOOCs, the most popular languages being Chinese, English, Spanish, Italian, and Portuguese, in that order.[3] There are obviously more now, but the countries, institutions, and publishers that are committed to LMOOCs have remained rather stable (Sallam, Martín-Monje & Li 2020). Usually, LMOOCs focus on a specific linguistic target, like a level (e.g., B1), a channel (e.g., oral), a process (e.g., writing) or a specialized domain (e.g., medical), which determines course design and the facilitation required (Sallam, Martín-Monje & Li 2020). After more than a decade, these courses still have great educational potential (e.g., in terms of increased effectiveness) and challenges (e.g., new competitors, turning them into a profitable or sustainable activity) for academic institutions and other providers of educational services.

The reality is that some of the parameters used to assess their success, such as completion rates and social recognition, still produce inconclusive results. These courses show no sign of student withdrawals and present promising data on other quality criteria (e.g., weekly attendance, experience sharing). However, statistical analyses of LMOOC questionnaires show that the participants "are not much different from those of other MOOCs" (Read, Sedano & Barcena 2018) and these, in turn, are similar to those of other online courses: mostly middle-aged, educated people with ongoing or past university experience (Agarwall 2016). These results are rather distant from the original intentions that LMOOC developers and researchers had in mind when the early courses were launched as an attempt to "democratize knowledge" (Daniel 2012).

There have been efforts to explore the adequacy of general MOOCs for inclusion (e.g., de Waard et al. 2014). The authors analyse the scenario of vulnerable groups and general MOOCs in the light of the European Union initiative of Opening up Education for all, and its corresponding MOOC portal. They also identify a number of areas of concern that must be dealt with to turn MOOCs into learning experiences for vulnerable groups, such as international policy leadership, digital identity, a focus on participation and dialogue, mobile friendliness and translinguistic strategy.

## 2.3. INCLUSION AND ACTIVENESS IN LMOOCS

Barcena, Read & Sedano (2020) and Read, Sedano & Barcena (2018) explored the deployment of LMOOCs on mobile devices, an idea that had been originally conceived by Barcena, Martín-Monje & Read (2015), specifically for displaced people, in order to help them develop language competencies and transversal skills that would help them improve their social inclusion via access to higher education or the labour market in the host country. Instructional design features were proposed for inclusive LMOOCs, based upon a prior analysis undertaken by the authors (Read, Sedano & Barcena 2018), and grouped into five design criteria: institutional policy, pedagogy, technology, linguistics, and culture and ethics. Regarding the first criterion, advances have been made in certification and recognition as a fundamental aspect of the potential of LMOOCs to help people who cannot recuperate their certificates or academic records, or those who never had them because they acquired the language while naturally immersed in the community.

As for the second and third criteria, Daniel (2012) notes that a "tremendous paradigm shift" would be required for universities to truly help large numbers of MOOC students gain credits. This is fundamentally an issue of institutional philosophy, as well as one of pedagogy, and only to a lesser extent, a technological one, since the lack of financial return to the institution limits the investment in tool development.

The fourth design criterion was explored in depth by Barcena, Read & Sedano (2020), where the authors analyse the concept of 'inclusive language', argue in favour of its use in LMOOCs, and identify a list of thirty-three linguistic resources to be used in forums and course materials

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2   *https://blog.edx.org/17-top-edx-courses-2017*.

3   *https://moonliteproject.eu/wp-content/uploads/sites/30/2019/09/MOONLITE-O3-Report.pdf*.

with a potential impact both on group inclusion and positive individual discrimination, based on Appraisal Theory (Martin & White 2005). These courses should have simple designs with intuitive interfaces, be culturally divergent, ethically relativistic and integrate non-Western views on knowledge, morality, socioeconomics and politics.

While MOOCs appear to be promising for vulnerable groups such as refugees and migrants to start, recuperate, and continue with their education, generic MOOCs (i.e., those not specifically prepared for any particular participant profile) are not proving to be effective here (Read, Sedano & Barcena 2018). The authors argue that a combined state of mind and action is required by vulnerable groups to facilitate engagement and successful learning. This compound state is defined here as *activeness*, a dynamic psychological and cognitive state where vulnerable students start to exercise control of their learning and progress based on their needs and desired outcomes.

This state emerges from the interaction and potentiation of different mental and behavioural processes. As SamSIFL et al. (2020) note, psychological factors (such as motivation, personal identity, values and attitude) are important in establishing the conditions for effective language learning. A common example in the literature is motivation (e.g., Goodridge 2017), defined by Brown (1994) as "an inner drive, impulse, emotion or desire that moves people to a particular action". Peirce (1995) moves beyond motivation to the concept of *investment*, which is argued to capture the complex relationship of language learners to their desire to use the language being learnt. The key role of self-esteem in motivation is also clear here (cf. Basco & Han 2016). According to support staff from NGOs, given the difficult life conditions and history of vulnerable groups like refugees and migrants, their self-esteem can be between low and very low, and this interferes with their learning.

Activeness is also underpinned by the way a student relates to and behaves with their peers on the course and learning activities therein. A student's perception of him-/herself is one element of this, another is the reciprocal relationship with the learning community. This is a form of *integration*, not so much with goals or contexts, but with the people who are actually driving and participating in the language learning process, be it classroom teachers, online course facilitators, or fellow students. It can be viewed, as such, as a form of empathy or rapport, social identification (Peirce 1995), and care (Bali 2020). While such states as investment and integration can prepare students to learn, the authors argue that a third and final element is missing, something that converts intention into effective action, namely that of *performance*, whereby students draw upon metacognitive processes such as self-regulation and self-efficacy to overtake the inertia of inactivity (often an enforced norm for refugees) and engage with their language learning activities (cf. Su et al. 2018). These relations are illustrated in *Figure 1*. Activeness is, therefore, defined by the authors as a state of flow that brings together
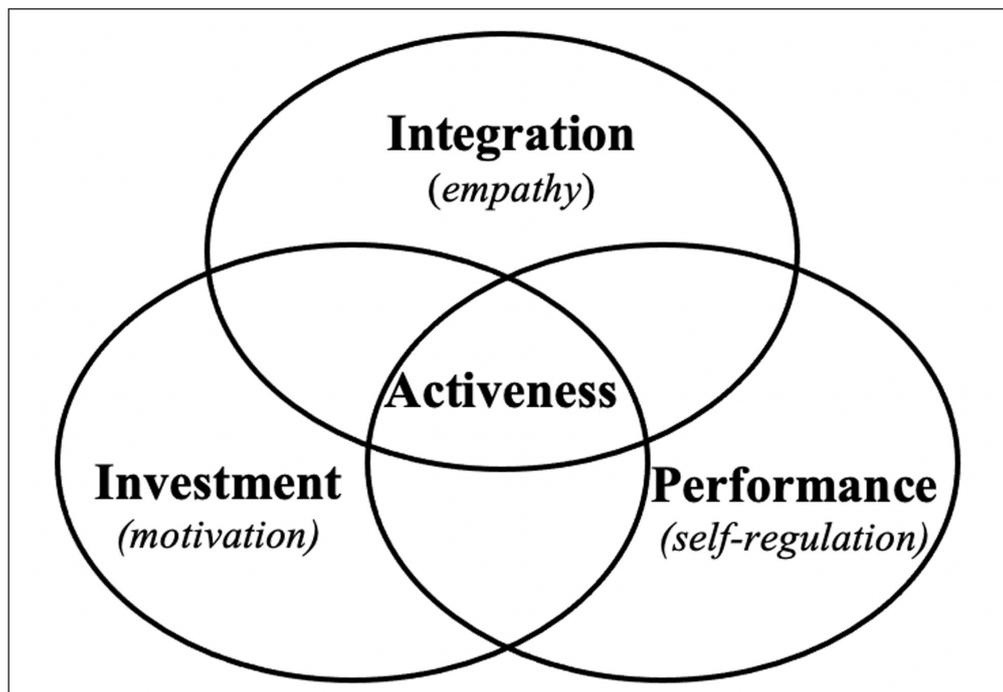


**Figure 1** The components of activeness.

investment, integration, and performance. It can be further seen as a state where students are committed both to their learning and to their capability to undertake it successfully, becoming active members of the target language community, where they can exercise their "right to speak" (Peirce 1995: 18).

It is further argued that all three elements are interwoven to potentiate language learning in vulnerable groups. A student can intend to, but not actually study, or study without investment or integration, neither of which arguably leads to effective learning. Care is, therefore, required in the design and development of language learning courses, so that sufficient scaffolding is provided (Martín-Monje & Barcena 2014), to make them as supportive and socially inclusive as possible.

## 3. STUDY

In this section a study is presented of an LMOOC developed for displaced people in Spain to support their social inclusion and employability. Both quantitative and qualitative data are analysed to answer the following research question:

> Does activeness potentiate learning in LMOCs for vulnerable groups?

Two consecutive inclusive LMOOCs were created in 2019 by the ATLAS research group as part of the MOONLITE project, which studied the role of different types of MOOCs for supporting social inclusion and employability, and to that end aimed at developing language competences and entrepreneurial skills. The courses focused on the immediate needs of displaced people who find themselves in Spain, or en route to the country, and were structured into modules that reflected the prototypical situations that such people would need to address (e.g., elementary administration and bureaucracy, housing, moving around, defending one's rights, looking for a job, enrolling on a course), the very topics that a group of collaborating teachers and refugees from NGOs had selected. These courses were run in 2019 for the first time and subsequently in 2020, due to the remarkable results obtained in the first edition, both in terms of course completion and accomplishment of participant expectations (Read, Sedano & Barcena 2018). The difference between both editions was the substitution of some of the closed tasks by open ones (e.g., undertaking information searches on Spanish websites) and being more overt in forum participation. A key methodological process to engage into activeness was course facilitation. The facilitators were Spanish language teachers or post-graduate students and received specific online training before starting the courses, with special attention to teaching for inclusion and activeness (e.g., how to select and proceed in the correction of student production, taking into account the potential vulnerability of some of them; positive reinforcement; specific techniques to promote open and broad interaction, i.e., not only succinctly answer the questions asked, but also comment on peers' interventions extensively) and the use of the language of inclusion and activeness in the forums (e.g., how to participate, what to avoid). Each course consisted of four thematic modules and ran for six weeks in both editions (one week per module, an initial one for the warmup and a final one for catching up), corresponding to 25 working hours, where one ECTS (European Credit Transfer and accumulation System)[4] credit was awarded upon completion.

In order to answer the research question presented above, analysis was undertaken of the second edition of the second LMOOC (A2+ level). The structure of each course essentially followed that of an XMOOC (or eXtended MOOC, with a structure similar to traditional courses, based upon content provided by the teaching team) and followed the standard example-based audio-visual methodology used in online language courses. Furthermore, in order to adapt to personal approaches, simple theoretical explanations of the topics being covered could be accessed on demand following the example-based material. In order to prevent confusion, frustration and course dropout, ten simplified bimodal (textual and video) guides to course functionality and methodology (e.g., how to enrol in the course, how to request a certificate) were included in Spanish, together with translations in Arabic, English and French (the main three mother tongues expected). However, in order to potentiate the target language, the Spanish version would always be shown by default. Each module started with a short introductory text with authentic background information on the topic, thus integrating

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4   https://ec.europa.eu/education/resources-and-tools/european-credit-transfer-and-accumulation-system-ects_en.

content and language learning. This would be typically followed by a video role-play of a prototypical situation in the context of the module. The videos were made as inclusive as possible, with volunteer actors from the student community of the collaborating NGOs, paying attention to gender, age, and ethnic diversity. In order to facilitate oral comprehension, the videos had transcriptions, like the guides. There were four types of learning activity included in each module. Firstly, individual activities, the results of which could be compared to explanatory model answers. Secondly, forum activities, where a particular topic was discussed or analysed. Thirdly, peer-to-peer activities, which enabled work produced to be evaluated by three other students using a correction rubric provided by the research team. Fourthly and finally, there were closed tests that evaluated the knowledge and skills gained. Supplementary material was provided for each module in the form of further cultural information and links to external resources, glossaries and multilingual vocabulary lists (provided mainly to help understand the course indications), etc. At the end, a final evaluation was included that covered the whole course. The study undertaken here uses a mixed methods approach (Robson 2002), combining qualitative and quantitative data collection tools, namely a text editor, Microsoft Excel software and IBM's SPSS statistical package (V.17).

The LMOOC was deployed on the Open edX platform at UNED (Spanish national distance education university; *Universidad Nacional de Educación a Distancia)*. The platform's Insights analytics tool provides quantitative (mainly numeric) data about a range of characteristics,[5] including individual enrolment metrics (activity, geography and demographics), course engagement (with content and videos), graded content submissions, ungraded problem submissions, and learning activities. The tool does not provide easy access to qualitative (textual) data from the forums, so they had to be exported from the platform by hand. These data were analysed by hand (at different linguistic levels, including orthographic, morphosyntactic, lexicosemantic) to identify linguistic evidence of student language learning.

Two questionnaires (prepared both to help the teaching team refine the course design for future editions and also for research purposes) were completed by the participants, one before the course began (pre-questionnaire) and one after they had finished (post-questionnaire). The former was important for the teaching team to understand the participants' backgrounds, needs, and expectations about the course, and any particular learning difficulties that they might have a priori. A design-based approach had been adopted for the development of the LMOOC (Barcena, Read & Sedano 2020), involving support and charity organizations who regularly work with refugees and migrants. This enabled the research group to design courses that would be as inclusive as possible, focussing on the types of real-world situations that displaced people would encounter, equipping them with the linguistic knowledge and communicative skills that they would need in Spain. The results from the pre-questionnaire provided data that could help the teaching team and facilitators to make fine-grained adjustments to the courses where possible. The post-questionnaire provided participants with an opportunity to express their opinions of the course and whether their initial expectations had been met. Both questionnaires included open and closed questions. These tools enabled a range of data to be obtained, some of which could be processed automatically whilst others required manual thematic analysis (Kothari 2004).

Finally, observation was used as a fourth research tool (complementing the platform analysis, forum traffic and questionnaires), to gather complementary data, as follows: The course facilitators provided weekly reports to the teaching team during the course, including the general behaviour of the participants and the most significant contributions. Once the course was over, the researchers also had full access to the logs. This information was not accessed during the course in order not to interfere in the participants' behaviour, and thus, compromise the integrity of the data being gathered. Therefore, it can be said that in order to ensure research validity, triangulation was carried out to test the coherence of the findings obtained from the different instruments and reach a comprehensive understanding of the phenomena.

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5   *https://open-edx-insights.readthedocs.io/en/latest/Overview.html*.

# 4. RESULTS

The number of students registered for the course was 1,832 and 660 completed it successfully (36%),[6] which are slightly higher rates than in the first edition of the same course, and considerably higher than in other similar LMOOCs (5–15%; Traxler, Barcena & Read 2019; Daniel 2012). The number of replies to each questionnaire was 845 and 602 respectively as this was not a mandatory task.

Regarding the general demographics, the pre-questionnaire showed the students to be mainly male (63%), with 68% between 21 and 40 years of age, and 81% between 21 and 50. While the gender rate is coherent with that of the MOOC average (Castrillo & Sedano 2021), the age range is broader than in similar MOOCs (namely 25–34; Li, 2019), which is consistent with the non-academic nature of the course. The major differences appeared in place of origin, current location, occupation and study levels. The students reported coming from 66 different countries, 71% of which were from outside Europe (48% in Africa, 8% in North/South America, and 15% in Asia). The majority stated that they were already in Spain (88% in total, 63% up to 1 year, 20% between 1 and 2 years), and of those outside the country, 78% had the intention of travelling there, or were in the process of doing so. The occupational status of the students was either unemployed (and looking for work, 64%), working (20%), or studying (16%). These results are different from those of average MOOCs, whose participants are usually from developed countries, their location not related to any country in particular, and who are mostly in higher education (Castrillo & Sedano 2021). These characteristics are compatible with the (forced) migration process out of Asia and Africa toward Europe (due to wars, terrorism, and natural disasters), that reached its peak in 2015. The most qualified people were able to leave their countries earlier, since it was easier for them to relocate to another country, find employment or join formal education programmes. The ones who were left behind or those from underdeveloped countries had fewer qualifications and opportunities and had to leave when they had no other choice. It can be deduced from these data that the course targeted the vulnerable groups it was intended for. Regarding the reported objective for undertaking the course, although the preferred option was too general to establish any correlations (since the course was for learning/improving Spanish), the subsequent options are compatible with inclusion and, to a lesser extent, activeness (see Table 1, Annexe 1 of the supplementary material).

Regarding the technological support used to undertake the course, 47% reported that they would be using a computer where they lived, a smartphone wherever they could get Internet access (34%), or any device available at their support organization (15%). It has been noted above that people from vulnerable groups often lack the technology and connectivity to undertake online learning. In this case, given that most of the students were already settled (to a certain degree) in Spain and had more or less stable access to a networked computing device, they were in a position to undertake the course.

It is argued that activeness has a double didactic and linguistic dimension, implemented as part of the design features in course materials (both in the video situations and in the model examples in the activities) and, more importantly, promoted in forum communication. The rubrics created to guide students in how to provide feedback during peer-to-peer activities included the item "Activeness/Passivity". For example, does the students' text show signs of initiative, assertiveness, negotiation, leadership, dissent or disagreement? Activeness became present in the participants' forum messages as the course progressed. Once introductions had been made and the students were seen to be settled in and confident in the new learning environment, the facilitators specifically undertook courses of action to promote activeness. Students were asked partial questions to avoid yes/no answers and elicit more informative ones. They were encouraged to prolong their interventions when these were brief, hesitant, or not very informative, and received positive feedback when they contained further detail or counterarguments. Although not applied in this edition, facilitators were trained to ensure that disagreements would not lead to polarization and, if they did, how to re-establish the balance of the discussion. In general, they followed a combination of approaches to correction, from explicitly suggesting a change of tone to casually implying it (e.g., "You put three dots at the

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6    Percentages have been rounded up to the nearest unit in the text for clarity of exposition.

end, do you mean there were others too?", "You didn't finish your sentence with a full stop. Did you want to add something?").

What follows are the main types of linguistic evidence of change and accomplishment observed in the forums as the course progressed (extensive examples are presented in Annexe 2 in the supplementary material). It is to be noted that emoticons were used frequently throughout the course to indicate the presence of humour and empathy. There were no occurrences of some linguistic features that are associated with passivity/activeness like the use of nominal and adjectival diminutive derivational morphemes, 'baby talk', or excess of formality in addressing the interlocutors, so they have not been included.

At the orthographic level, in the early forums of the course there were many messages with false starts, institutionalized connective adjuncts functioning as discourse markers, and/or open endings, which gradually became complete sentences. Since all the forums were textual, it was not possible to detect any oral progress, e.g., a change from the use of hesitant to fluent speech and from dull to lively prosodic patterns. At the morphosyntactic level, it was detected that messages became longer and more complex as the course progressed, yet there was an increasing use of assertive structures and verbal forms parallel to an abandonment of non-assertive ones and particularly hedging. Although question tags could be considered to be a form of hedging, they have been separated as one of the main discourse markers in interaction. At the lexicosemantic level, the most prominent feature was that in the first part of the course, messages tended to be more imprecise and emotionally tinted. There was a combination of positive and negative emotional expression, and there appeared to be a correlation between the background culture and the tendency for understatement and hyperbole. Furthermore, the expression of subjective thought was often hidden in canned language that was only adapted to the target language in more advanced discourse, so in some cases messages were almost unintelligible. As the course progressed, lexical selection became more accurate and expression more direct, objective and factual. At discourse level, there is evidence of a progression from messages that showed excessive complements and praise, gratitude or apology, and others that denoted a certain degree of modesty, self-criticism and powerlessness in the early forums of the course, towards more assertive ones, some of which showed open discrepancy with respect to previous peers' and facilitators' input.

The course analytic tool revealed that, once the students registered for the LMOOC, they followed it arduously. This high engagement level is atypical (since participation usually drops off after the beginning of the course) and is reflected in the overall course completion and in another five pieces of data. Firstly, regarding the completion rate, other LMOOCs previously developed by the ATLAS[7] research group on the same platform had not achieved such a high rate, namely: Professional English, 1st edition, in 2013 (7%); How to succeed in the B1 Exam, 1st edition, in 2015 (12%); and Spanish for Travel, 1st edition in 2017 (17%) (Castrillo & Sedano 2021).

Secondly, as can be seen in Table 2 (in Annexe 1 of the supplementary material), the number of correct submissions to the activities were all very high, which is congruent with an attitude of motivation and engagement and these, in turn, with course satisfaction (as per the post-questionnaire). Despite the logical connection between these elements, no causal relationship between correct submissions and course satisfaction can be demonstrated.

Thirdly, the visualizations of the course videos for the four main modules were almost all complete (see Table 3, in Annexe 1 of the supplementary material) which, together with the post-course questionnaire data, suggested many learners valued them. The videos presented role-plays of common situations for new arrivals in Spain, such as basic interaction in the unemployment office. Special care was taken to involve volunteer actors, screenwriters, and production assistants with a wide demographic profile, in an attempt to come up with materials that represented the potential students of the course.

Fourthly, the number of new threads and messages was not only high for this type of course, but also remained so as the course progressed (see Table 4, in Annexe 1 of the supplementary material). This is not usually the case, where the number of messages fall away as the course

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7 Applying Technology to LAnguageS. Consolidated research group (number 14) at UNED, Spain.

progresses due to a combination of reasons well documented in the literature, including lack of relevance and the impersonal nature of these courses (Barcena, Martín-Monje & Read 2015).

Fifthly, according to the post-questionnaire, 97.1% of the students who finished the course considered it to have helped them improve their basic Spanish and achieve the rest of the goals that had motivated their registration (see Table 6, in Annexe 1 of the supplementary material). While some bias might exist in this result, since students who typically complete a course are likely to react favourably to such a question, the authors' experience is that such a relationship does not prevent adult students these days from being critical of online courses.

The most popular type of resource was the forum activities, followed by the tests, the videos, the cultural notes, the audios, and finally, the texts. (See Table 5 in Annexe 1 of the supplementary material.) Although it must be emphasized that there is not much difference between them and they are all positively valued, there is a slight preference for tasks that involve activeness on the part of the learner and for visual material (over audio and text).

Following the course, a multiple-choice questionnaire was used to gauge the students' satisfaction (see Table 6, in Annexe 1 of the supplementary material). Furthermore, in the subsequent open question, there were brief congratulatory remarks such as: "Well done, thank you, I enjoyed the course" ("Enhorabuena, gracias, me *gustado el curso") and "I am really looking forward to doing another course with you" ("Me gustaría mucho hacer otro curso con vosotros"). Essentially all the students were either satisfied or very satisfied with the way in which the course had met their initial expectations. Due to data protection regulations, it was not possible to identify the students in the two questionnaires, thereby preventing data correlation.

# 5. DISCUSSION AND CONCLUSION

In order to explore the role of activeness, an LMOOC was designed and developed to potentiate learning in vulnerable groups by using a fine-grained course design process that focussed on material and activity elaboration, facilitator training, and subsequent scaffolding set up. It was both inclusive and participatory for vulnerable learners in the context of their virtual learning community. The results of the course presented here would appear to show that the target language competence of the students improved. This can be seen in the high grades achieved in the activities and their improved use of interactive linguistic skills in the target language, which contained a progressively more adequate vocabulary and higher levels of discourse coherence and cohesiveness as the course progressed (as illustrated in Table 2, in Annexe 1 of the supplementary material). The success of the second edition of the course can also be gauged by student satisfaction and overall course completion. Thus, the general goals of understanding, respect, acceptance, empathy, and harmony that had been achieved in the first edition of this course, which focused on inclusive language and pedagogy and had been a real learning booster, were taken a step further by focussing on activeness.

The authors asked a research question about activeness and whether it potentiates learning in LMOCs for vulnerable groups. To answer this question the presence of the three elements that define activeness in the course can be identified:

- Firstly, **investment** was evident in the extensive use of the target language by the students throughout the course, showing signs of assertiveness, negotiation, initiative, leadership, dissent, and disagreement, as required.
- Secondly **integration** was evident in the empathic interaction between students, facilitators and teachers. Throughout the entire course, the forums remained a conflict-free environment, where messages were marked by the same positive emotional tone. The messages were also longer and more elaborate than in prior LMOOCs (according to authors' experience) and were straightforward in tone and construction. This also made them more direct, intelligible and accurate.
- Thirdly, the high degree of **student performance** was evident from the extensive use of the learning resources, which didn't drop as the course progressed; participation in the forums; the number of activities undertaken and the degree to which they were completed; and the good results obtained in the majority of assessments. Furthermore,

active participation in the forums also provided the students with an increase of quality exposure to the target language, known to be one of the main factors in the development of second language knowledge and skills.

While progress has been made with the exploration of the nature of activeness in this work, there are limitations that require further research to help clarify. Specific questions that need to be answered are: How effective would activeness be for refugees and migrants in different contexts? How relevant would it be for other vulnerable groups? How would it apply in the general student community? And could it be applied to other types of learning than languages? The answer to the research question in this article would appear to be that activeness, when designed, developed, and facilitated into an LMOOC, does potentiate language learning for the vulnerable group of students who undertook it. Activeness is argued to be a catalyst for language learning in such groups. It both facilitates more effective target language learning and empowers students to reach their developmental potential to become engaged members of the language learning community. Inclusive learning relates to humans' need to be respected and accepted as members of the community where they are. Vulnerable learners are frequently unfamiliar with, if not separated from, the target language and culture, and have feelings of rejection or isolation, which act as hindering agents for their learning. Therefore, participating in an inclusive LMOOC is claimed to have served the triple purpose of learning the target language, accessing the associated cultural knowledge in a strategically scaffolded way, and connecting with a range of other speakers of that language in a virtual community, arguably an important step towards doing the same in the real world.

## ADDITIONAL FILE

The additional file for this article can be found as follows:

- **Supplementary Material.** Annexe 1 and 2. DOI: *https://doi.org/10.5334/jime.628.s1*

## ETHICS AND CONSENT

The students referred to in this study were volunteers. They were informed about the research before the LMOOC started and their anonymity was guaranteed. This was achieved in three ways: firstly, the data analytics on the MOOC platform did not record personal student information, only the actual results of interactions with the platform and the undertaken activities. Secondly, forum interactions were exported and stored with login ids and not names. Thirdly and finally, the pre- and post-questionnaires also only recorded login ids.

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## COMPETING INTERESTS

The authors have no competing interests to declare.

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## REFERENCES

**Agarwal, A.** 2016. The global MOOC moment: Massive open online courses, though controversial, are improving lives all over the world. *US News*. Available at *www.usnews.com/news/best-countries/articles/2016-02-01/the-global-mooc-moment*.

**Aimin, L.** 2013. The study of second language acquisition under socio-cultural theory. *American Journal of Educational Research*, 1(5): 162–167. DOI: *https://doi.org/10.12691/education-1-5-3*

**Bali, M.** 2020. Pedagogy of care: Covid-19 edition. *Reflecting Allowed* (BLOG), Available at *https://blog.mahabali.me/educational-technology-2/pedagogy-of-care-covid-19-edition/*.

**Barcena, E, Martín-Monje, E** and **Read, T.** 2015. Potentiating the human dimension in Language MOOCs. *Proceedings of the European Stakeholder Summit on experiences and best practices in and around MOOCs, EMOOCs, 2015*, 46–54. Available at: *https://bit.ly/3wSyCIi*.

**Barcena, E, Read, T** and **Sedano, B.** 2020. An approximation to inclusive language in LMOOCs based on appraisal theory. *Open Linguistics*, 6(1): 38–67. DOI: *https://doi.org/10.1515/opli-2020-0003*

**Barkanyi, Z.** 2021. Motivation, self-efficacy beliefs and speaking anxiety in language MOOCs. *ReCALL – Researching Massive Open Online Courses for language teaching and learning*, 33(2): 143–160. DOI: *https://doi.org/10.1017/S0958344021000033*

**Basco, LM** and **Han, SH.** 2016. Self-esteem, motivation, and anxiety of Korean university students. *Journal of Language Teaching and Research*, 7(6): 1069–1078. DOI: *https://doi.org/10.17507/jltr.0706.02*

**Brown, HD.** 1994. *Principles of language learning and teaching.* (3rd ed.). New Jersey: Prentice-Hall.

**Castrillo, MD** and **Sedano, B.** 2021. Joining forces towards social inclusion: Language MOOC design for refugees and migrants through the lens of Maker culture. *CALICO Journal*, 38(1): 79–102. DOI: *https://doi.org/10.1558/cj.40900*

**Compton, LK.** 2009. Preparing language teachers to teach language online: A look at skills, roles, and responsibilities. *Computer Assisted Language Learning*, 22(1): 73–99. DOI: *https://doi.org/10.1080/09588220802613831*

**Cortes, KE.** 2004. Are refugees different from economic immigrants? Some empirical evidence on the heterogeneity of immigrant groups in the United States. *The Review of Economics and Statistics*, 86(2): 465–480. DOI: *https://doi.org/10.1162/003465304323031058*

**Daniel, J.** 2012. Making sense of MOOCs: Musings in a maze of myth, paradox and possibility. *Journal of Interactive Media in Education*, 3. DOI: *https://doi.org/10.5334/2012-18*

**Dávila, LT.** 2017. Newly arrived immigrant youth in Sweden negotiate identity, language & literacy. *System*, 67: 1–11. DOI: *https://doi.org/10.1016/j.system.2017.04.001*

**de Waard, I, Gallagher, MS, Zelezny-Green, R, Czerniewicz, L, Downes, S, Kukulska-Hulme, A** and **Willems, J.** 2014. Challenges for conceptualising EU MOOC for vulnerable learner groups. In *Proceedings of the European MOOC Stakeholder Summit*, 33–42. Available here: *https://bit.ly/3iaiopz*.

**Eurobarometer (Special).** 2006. *Europeans and their Languages*. European Commission.

**Godwin-Jones, R.** 2018. Chasing the butterfly effect: Informal language learning online as a complex system. *Language Learning & Technology*, 22(2): 8–27.

**Goodridge, P.** 2017. Second-language acquisition and motivation: A literature review. *The Journal of Undergraduate Research at the University of Tennessee*, 8(1): 8.

**Kothari, CR.** 2004. *Research methodology: Methods and techniques*. New Delhi: New Age International.

**Lantolf, JP, Thorne, SL** and **Poehner, ME.** 2015. Sociocultural theory and second language development. *Theories in second language acquisition: An introduction*, 1: 207–226.

**Marcos-Llinás, M** and **Garau, MJ.** 2009. Effects of language anxiety on three proficiency-level courses of Spanish as a foreign language. *Foreign language annals*, 42(1): 94–111. DOI: *https://doi.org/10.1111/j.1944-9720.2009.01010.x*

**Martin, JR** and **White, PJ.** 2005. *The language of evaluation appraisal in English*. London: Palgrave Macmillan.

**Martín-Monje, E** and **Barcena, E.** (eds.) 2014. *Language MOOCs: Providing learning, transcending boundaries*. Warsaw: De Gruyter Open. DOI: *https://doi.org/10.2478/9783110420067*

**Marzouki, OF, Idrissi, MK** and **Bennani, S.** 2017. Effects of social constructivist mobile learning environments on knowledge acquisition: A meta-analysis. *International Journal of Interactive Mobile Technologies*, 11(1). DOI: *https://doi.org/10.3991/ijim.v11i1.5982*

**Nusbaum, EA.** 2013. Vulnerable to exclusion: The place for segregated education within conceptions of inclusion. *International Journal of Inclusive Education*, 17(12): 1295–1311. DOI: *https://doi.org/10.1080/13603116.2013.826292*

**Peirce, BN.** 1995. Social identity, investment, and language learning. *TESOL quarterly*, 29(1): 9–31. DOI: *https://doi.org/10.2307/3587803*

**Read, T, Sedano, B** and **Barcena, E.** 2018. Tailoring language MOOC design for migrants and refugees. In *Technological Innovation for Specialized Linguistic Domains: Languages for Digital Lives and Cultures Proceedings of TISLID, 18*, 383–396. Mauritius: Éditions universitaires européennes.

**Robson, C.** 2002. *Real world research: A resource for social scientists and practitioner-researchers*. Oxford: Blackwell.

**Sallam, M, Martín-Monje, E** and **Li, Y.** 2020. Research trends in language MOOC studies: A systematic review of the published literature (2012–2018). *Computer Assisted Language Learning*. Available at *https://www.tandfonline.com/doi/abs/10.1080/09588221.2020.1744668*. DOI: *https://doi.org/10.1080/09588221.2020.1744668*

**SamSIFL, Rustamova, AE, Qudratova, DR** and **Kudratov, LF.** 2020. Psychological factors of learning foreign language pronunciation. *European Journal of Research and Reflection in Educational Sciences*, 8(2): Part II. 22–24.

**Schreiber-Barsch, S.** 2018. Global citizenship education and globalism. In *The palgrave handbook of global citizenship and education*, 113–131. London: Palgrave Macmillan. DOI: *https://doi. org/10.1057/978-1-137-59733-5_8*

**Shimray, SR** and **Ramaiah, CK.** 2019. Use of internet through mobile devices: A survey. *SRELS Journal of Information Management*, 56(2): 100–105. DOI: *https://doi.org/10.17821/srels/2019/v56i2/141631*

**Silver, L, Smith, A, Johnson, C, Taylor, K, Jiang, J, Monica, A** and **Rainie, L.** 2019. *Use of smartphones and social media is common across most emerging economies.* Pew Research Center. Available at *https://www.pewresearch.org/internet/wp-content/uploads/sites/9/2019/03/PI_2019.03.07_Mobile-Connectivity_FINAL.pdf.*

**Su, Y, Zheng, C, Liang, JC** and **Tsai, CC.** 2018. Examining the relationship between English language learners' online self-regulation and their self-efficacy. *Australasian Journal of Educational Technology*, 34(3). DOI: *https://doi.org/10.14742/ajet.3548*

**Suhendi, A.** 2018. Constructivist learning theory: The contribution to foreign language learning and teaching. *KnE Social Sciences*, 87–95. DOI: *https://doi.org/10.18502/kss.v3i4.1921*

**Traxler, J, Barcena, E** and **Read, T.** 2019. Refugees from MENA learning languages: Progress, principles and proposals. In: Reinders, H, Coombe, C, Littlejohn, A and Tafazoli, D (eds.), *Innovation in language learning and teaching,* 19–38. London: Palgrave Macmillan. DOI: *https://doi.org/10.1007/978-3-030-13413-6_2*

**Tuncer, U.** 2009. How do monolingual and bilingual language learners differ in use of learning strategies while learning a foreign language? *Evidences from Mersin University*, 852–856. Amsterdam: Elsevier. DOI: *https://doi.org/10.1016/j.sbspro.2009.01.153*

**van de Pol, J, Volman, M** and **Beishuizen, J.** 2010. Scaffolding in teacher-student interaction: A decade of research. *Educational Psychology Review*, 22(3): 271–296. DOI: *https://doi.org/10.1007/s10648-010-9127-6*

**Vorobyeva, A.** 2018. Language acquisition through massive open online courses (MOOCs): Opportunities and restrictions in educational university environment. *XLinguae*, 11(2): 136–146. DOI: *https://doi. org/10.18355/XL.2018.11.02.11*

**Wearing, M.** 2011. Strengthening youth citizenship and social inclusion practice—The Australian case: Towards rights based and inclusive practice in services for marginalized young people. *Children and Youth Services Review*, 33(4): 534–540. DOI: *https://doi.org/10.1016/j.childyouth.2010.05.012*

**Yates, L.** 2011. Interaction, language learning and social inclusion in early settlement. *International Journal of Bilingual Education and Bilingualism,* 14(4): 457–471. DOI: *https://doi.org/10.1080/13670050.2011.573068*