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of business

## BizMOOC Result 4.2b

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Evaluation Report on Pilot MOOC 2 –  
Innovation, Creativity & Problem-Solving

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### Evaluation Report on Pilot MOOC2 – Innovation, Creativity & Problem-Solving

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## Abbreviations list

BFU – Burgas Free University (Bulgaria)

CC – creative common

ECTS – European Credits Transfer System

ICT – information and communication technology

ITV – IT Valley (Slovakia)

MOOC – Massive Open Online Course

MOOC2 – pilot 2 MOOC within the BizMOOC project, focused on Innovation, idea creation and problem-solving titled *“How to generate creative ideas and how to make them work”*

UA – University of Alicante

Unimooc – platform of MOOCs offered by the University of Alicante (International Economy Institute team)

# Evaluation Report on Pilot MOOC 2 – Innovation, Creativity & Problem-Solving

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## Executive summary

The second Pilot MOOC (Massive Open Online Course) of the BizMOOC project was created, according to the project proposal, to deal with the Lifelong Learning key competence “Sense of Initiative” and was narrowed after consultation with stakeholders, market research, and the fundings authority to “innovation, creativity and problem solving”. It was designed considering a focus on the basics of idea creation and to reuse open licensed contents as much as possible.

The course contents included an introduction presenting creativity as a human innate capacity and a set of resources such as ideation methods, effective problem solving strategies, critical thinking, learning from failure, prototyping ideas, etc. Despite the rather shy participation in the first edition of this MOOC, after a more aggressive promotion of MOOC2, in the 2nd edition the number of students enrolled was almost tripled. In the two editions a total of 2,081 students were enrolled from 57 countries with a clear majority of Spanish-speaking countries. In line with the Learning Design approach of the Open University (UK), an updated version was elaborated furthering the didactical design of MOOC2.

17 experts, 151 learners, two MOOC developer teams and two external evaluators carried out the evaluation described below using diverse approaches. The course completion rate is slightly lower than MOOCs average generally expected to range between 5 and 15%. Even though, the feedback received from the participant’s points that they would recommend this course or other courses developed under the BizMOOC umbrella and they are open to future participation in BizMOOC courses.

Among the most relevant conclusions, it is worth mentioning the complex task of developing and managing a cMOOC, which it is not always the most suitable type of MOOC to be

implemented. Choosing the type of MOOC to be developed and implemented must take into account several aspects as the subject criteria it's not enough. In fact, the course platform was probably not ready to incorporate cMOOC features, and a complete platform redesign was almost certainly required. Next, the diverse background and lower levels of previous MOOC production experience within the development team was challenging and enriching (for learning and getting more target group insights) at the same time.

The low participation in the first edition was overcome due to the improvement of the promotion strategy of this type of MOOC. It is clear that promotion is a key to success, but, at the same time, might be an important challenge.

Critical thinking and problem solving strategies were the main topics according to the pre-course survey. Enrolees indicated that the course shows new ways of thinking and how to improve creativity and contributes to a proper development of critical thinking in the long term.

Among the main barriers identified by the enrolees, the lack of time availability and the low direct applicability to individual's current work is worth being mentioned. An additional challenge were the unequal language skills of the enrolees deriving from different language communities (with Spanish the largest, but also English and many South and Eastern European countries which asked for local languages) that could be one of the explanations of the low completion rate and the rather low number of active participants among the community created around this course.

The pilot implementation however resulted in many valuable key lessons learnt and recommendations, which have been fed into the overall reports of the BizMOOC project and the new version of the MOOC BOOK to be published in October 2018 ([mooc-book.eu](http://mooc-book.eu)).

## Introduction

Massive Open Online Courses (MOOCs) has been exponentially increasing due to a variety of factors. The evolution of information and communication technology (ICT) in the last decades in conjunction with the increased demand of a tailored education which better adapts to the needs of each (formal or informal) learner conducted to a shift in the format and pedagogical base of the educational system in recent years. This new format and pedagogical approach are the most important ones which makes MOOCs very suitable for teaching and learning concepts, methods and theories, while facilitating the achievement of practical skills and competences and last but not least, for boosting the sense of innovation and the creativity of the educational process participants.

Moreover, MOOCs offer to a diverse community of participants the opportunity to share ideas and get deeply involved in the subject through a rich variety of synchronous and asynchronous online activities. This document describes the pilot MOOC 2 *"How to generate creative ideas and how to make them work"* developed and implemented under the umbrella of BizMOOC project and delivers a detailed analysis of its evaluation process and results. While it presents a general description of the course and its production process, it also includes a different evaluation of the results, some lessons learnt and recommendations with some conclusions from each evaluation. There are also complete data on each evaluation step as annexes.

The content of this MOOC was focussed on generating innovative ideas and making them work. Along with the main aim of teaching idea generation strategies and tools to exploit them, it also teaches other relevant skills such as learning from failure and problem solving. This course was aimed to:

- Present creativity as a human innate capacity
- Stimulate the deployment of creative potential
- Teach a range of different techniques to generate ideas
- Teach strategies and techniques for effective problem solving
- Help you to identify and learn from failure
- Allow you to get to know approaches and criteria for evaluating and selecting ideas

MOOC2 was structured into six modules to be open (each one of them) during one week. The estimated workload per module was of about 5 hours study time each. Thus, MOOC2 was

estimated to need a dedication of about 30 hours in average. Students that completed a module were awarded with the module's respective badge. Only in the case of getting all six badges enrollees could obtain a certificate of attendance.

## General Information about the course

### Overview

**Title of the MOOC:** How to generate innovative ideas and how to make them work

BizMOOC website link:

<http://bizmooc.eu/how-to-generate-innovative-ideas-and-how-to-make-them-work/>

**Course link:** <https://learn.unimooc.com/student/courses/course?course=innovative-ideas-2>

**Platform used:** UniMOOC (unimooc.com), International Economy Institute, University of Alicante

**Creators:** University of Alicante - Francisco Gallego; Burgas Free University - Mariya Zheleva and Yanislav Zhelev; IT Valley - Andrea Kalafusova and Nina Tršková.

### Design Process

The design of the MOOC followed the methodology of Learning Design (Galey, 2015) as established during the meeting carried out at the Open University (Cardiff, UK) in March 2017. Thus, it was defined by the *Methodology of Pilot MOOCs* (project deliverable R3.1).

The first step in this process was setting up the production team during the workshop led by the Open University in Cardiff. The team was formed, as planned in the project's proposal, based on the cross-sectoral and interdisciplinary MOOC teams. Thus, a MOOC experienced higher education institution (hereinafter HEI), a MOOC non-experienced HEI and a business partner. The two higher education institutions included in the team were the University of Alicante and Burgas Free University. The cross-sectoral and interdisciplinary perspective was achieved by including also an industry partner. Initially, it was iversity GmbH (Germany), but it had to be



replaced by Košice IT Valley z.p.o. (Slovakia) due to the status of iversity GmbH. The whole design process was a “learning by doing” experience as, despite the previous experience of the University of Alicante in the MOOC production and implementation, this was an intercultural (in a wider sense) and more complex experience for each one of the members of the team.

One of the main challenges of the MOOC aimed at achieving (in line with the project proposal) was its type: cMOOC. This type of MOOC is based on the connectivist approach of Downes (2012) and Simens (2005); summing up, it is about knowledge building through connection and collaboration with peers (Simens, 2010) where learners are co-creators of the content (Cabero et al., 2014; Joksimovic et al., 2015). Additionally, cMOOC are not including a formal evaluation of the learning achievements. In this type of MOOCs, it is essential to focus on the early instructional design and facilitation, as this is the main role of teachers.

Moreover, given the use of various sources for sharing information and resources among learners more attention should be paid to the optimal sources that learners might use. Taking into consideration each student’s profile, goals and social context might be the way towards an adaptive MOOC design facilitating a better functioning of a cMOOC (Fidalgo-Blanco et al., 2013).

After a long decision making process regarding the design of this course and its implementation, the team concluded that an xMOOC would need to be the starting point and on the way come up with additional tools necessary to make it more connective within learners. Therefore, it was designed as an xMOOC with some cMOOC features.

Still, the mass, heterogeneity, conductive collaborative activities and management of distributed and generated knowledge resources are some of the characteristics of cMOOCs that make it much more difficult to manage than a traditional xMOOC, for example. Following Fidalgo-Blanco et al. (2013), several aspects were kept in mind when designing this MOOC:

- In order to facilitate groups with similar profiles or individual learners to propose activities within cMOOCs, adaptive technology and methodology were considered. It was meant to tackle these aspects through a continues adaptation of the methodology while counting with a good participation rate.
- Make use of the learning analytics aiming at helping learners in their selection of resources, the collaborative connectivist activities in accordance to their goals, as well as

and the relationship with resources more typical for other profiles. With a low rate of active learners this was not an easy task.

- Given the double role of participants as learners and knowledge co-creators, promoting and managing the creation of collaborative resources learning communities linked to the MOOC were considered essential. Once more, the low activity rate of learners consisted one of the main barriers.

Throughout the process, several UniMOOC platform adaptations were required with specific implementation for connectivity tools.

Since the beginning of the design process it was considered one of the most frequent issues within MOOCs, the high dropout rate that might have an even worse impact on cMOOCs than on other types of MOOCs. Thus, a quick shift towards another type of MOOC was foreseen from the initial stage of MOOC2 despite the high expectations of enrolment among the learners of Unimooc platform.

From the very beginning of the design process, given the composition of the team in charge of this MOOC, especially experts in IT, the course was shaped according to the following ideas:

- The course is emphasising on the basics of *idea creation* as an introductory course to the “Creativity” topic open to a broader audience. It is not meant to facilitate knowledge on how to build a start-up but a way to find the idea for it.
- Existing videos and materials were considered for being reused when counting with open licensed contents from other courses. Learners, as co-creators of knowledge within this MOOC, are supposed to use this kind of materials for the cMOOC platform and group activities.
- Taking advantage of the community of learners interested in MOOCs, course-monitoring tasks were to be reduced.

Thus, based on a continues communication among the team members and the consortium, different proposals for course materials and activities with time estimation were defined. Open licenced content was pre-selected to be reviewed and eventually included in the course. Next step was the development of the summary content and track relevant course components.

After the refinement of the content, including introductory videos for each module, a Presskit was developed including promotional videos.

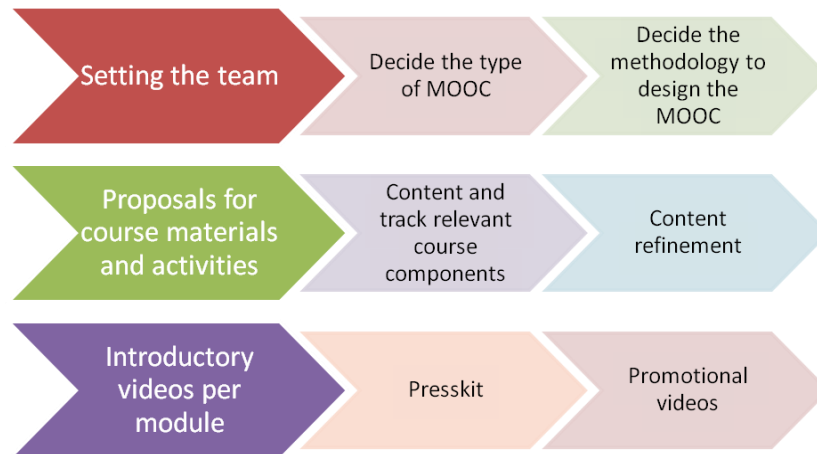
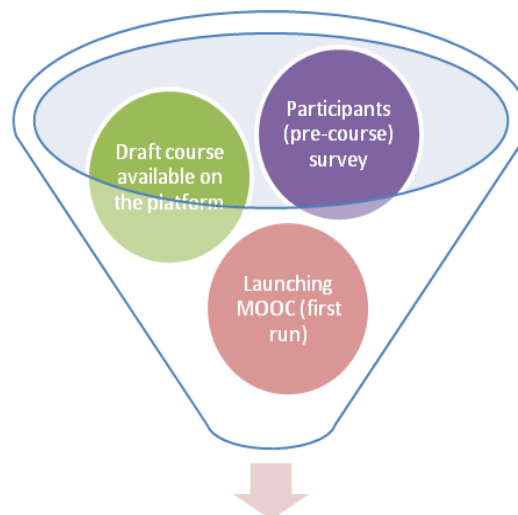


Figure 1: Steps of the design process

Before launching the MOOC a pre-course survey was designed and delivered to the community of potential learners aiming at better adapting the methodology and course to the real needs and expectations of future learners. After the first edition of the MOOC (November-December 2017), a post-evaluation process was implemented with the objective of improving the course before launching its second edition.



Post-evaluation

Figure 2: Evaluation flow

Reshaping the MOOC  
before its 2<sup>nd</sup> run

The course was structured in six weeks with a total of six modules open, online and free of charge in two different editions. Learners were expected to dedicate about 5 hours per module in order to complete all the activities and obtain the corresponding badge.

Module	Title	Learning outcomes	Dedication
1	<b>Introduction to the course and creativity</b>	<ul style="list-style-type: none"> <li>• Get to know the course and its platform</li> <li>• Present creativity as a human innate capacity</li> <li>• Stimulate the deployment of creative potential</li> <li>• Communicate/get to know other learners in the same group</li> </ul>	5 hours
2	<b>Ideation techniques and different ways of thinking</b>	<ul style="list-style-type: none"> <li>• Get to know a range of different techniques to generate ideas.</li> <li>• Learn the difference between convergent vs. Divergent thinking</li> <li>• Be able to identify, use and discuss on ideation methods</li> </ul>	5 hours
3	<b>Critical thinking and problem solving methods</b>	<ul style="list-style-type: none"> <li>• Get to know what is critical thinking and the main steps of the process</li> <li>• Learn strategies and techniques for effective problem solving</li> <li>• Identify the steps to solving a problem effectively</li> <li>• Learn how to make the ideas visible, tangible and consequential</li> </ul>	5 hours
4	<b>Learning from failure and prototyping ideas</b>	<ul style="list-style-type: none"> <li>• Identify and accept failure</li> <li>• Realise that you can actually learn from failure</li> <li>• Prototyping ideas</li> <li>• Get to know and use a concept map</li> </ul>	5 hours
5	<b>Intellectual Property, Open Licensing and Idea Evaluation</b>	<ul style="list-style-type: none"> <li>• Improve the skills to search, reuse, adapt, and compose new solutions from already developed by the others ideas</li> <li>• Get to know approaches to, and criteria and principles for, evaluating and selecting idea</li> <li>• Improve the skills for defining and understanding different criteria for evaluating ideas.</li> </ul>	5 hours
6	<b>Final assessment and group activity</b>	<ul style="list-style-type: none"> <li>• To demonstrate the acquired skills in generating, presenting and evaluating innovative ideas</li> </ul>	5 hours

Table 1: How to generate creative ideas and how to make them work. Learning outcomes.

## General overview of the course

The course aims at introducing enrolees to the idea creation, innovation, creativity in a broad way as well as to problem solving topic. By using an e-learning platform (Unimooc) and selected open licenced contents, but with a connectivist approach, based on social learning and cooperation, participants had the opportunity of getting in contact and collaborate in the learning process in a multicultural and interdisciplinary background.

The first week was dedicated to the introduction to the creativity and facilitating the connection between enrolees and the future connectivist activities planned in the following weeks and modules. The group activity as designed as an unconventional self-intro, an activity through which each enrolee introduces itself by using "A photograph (a photo collage or video) that represents YOU". Each participant was expected to use a photo that speaks 500 words about who the participant is. Once the photo was embedded into a post, the intros will be voted and discussed in groups.

The second week facilitated an introduction to different ideation methods, e.g. divergent and convergent thinking, creative thinking or creative styles, among others. By using one ideation techniques, enrolees come up with creative ideas on one of the suggested topics which were to be improved through discussions with the rest of the participants.

The third week gave learners some insights regarding critical thinking and problem solving strategies and techniques. Within this module, enrolees were expected to study a specific common problem and draft a fishbone diagram aiming at coming up with ways to solve it. A Google drawing template was facilitated to the participants for this group exercise in order to analyse, discuss and evaluate others' outputs.

The forth week, enrolees started to see the possibility of learning from failure and prototyping ideas. Within this module, the group activity consisted of creating a concept map for "personal brand creation" and share it. Enrolees shared their concepts maps on how to create a personal brand and commented others' maps.

The fifth week was dedicated to an introduction to Intellectual Property Rights and Open Licensing during the process of idea generation. One of the most relevant group activities within this MOOC was the one related to the module five which entailed searching for and evaluating "interesting" CC resources regarding any of the following topics: how can you improve your eating habits, how stop smoking or how get more self-organised. A minimum of 2 samples was

required per enrollee to be shared within their respective groups. The best ideas were selected through voting and awarded with badges.

During the 6<sup>th</sup> week, a final module was carried out mainly focused on evaluating the knowledge acquired throughout the five previous modules. One of the group activities consisted of the “Jury of Ideas”, designed as a kind of peer review with the following two parts:

- Presenting an innovative idea. Each enrollee had to come up, develop and present an innovative idea on a free topic making use of any of the tools introduced in the course in order to present it (e.g. fishbone diagram, concept map, etc.)
- Jury of Ideas. Enrolees had the opportunity to discuss the ideas of the rest of the participants within the course group forum.

## Target groups

Under the economic crisis context, unemployment was not a novelty in Europe. Many young adults and not that young had to deal with unemployment. A possible way out of this status, at least for part of them, seem to be innovation, creativity and problem solving. Thus, this MOOC was aimed at coping with these aspects emphasizing some of the skills required by the labour market as the sense of initiative, digital competences, communication in foreign languages, creativity as well as cultural awareness and expression. With such a context, target groups were defined as follows:

- Students (just graduated with no job expectation and willing to acquire practical knowledge) mainly from Latin America and Eastern-Europe;
- Low-skilled employees that want to improve their capacities;
- Multipliers: other projects, incubators, accelerators and Chambers of Commerce that facilitate start-up companies.

As already mentioned previously, MOOCs face several challenges: the mass, heterogeneity, high dropout rates (generally around 90%), low completion rates (commonly around 10%), low engagement in the connectivist activities (Fidalgo-Blanco et al., 2013; Fidalgo-Blanco et al., 2016) and even scarce language skills. With the MOOC2 experience at least three of these challenges had to be put down somehow.

- Despite the enrolment registered especially in the 2<sup>nd</sup> edition, the commitment of learners in the connectivist activities was much too low this being the main reason of simplifying the 2<sup>nd</sup> edition compared to the first run.
- Moreover, the completion rate, classified as one of the most negative aspects of MOOCs, varying between 5% and 15% (Belanger and Thornton, 2013; Jordan, 2013), is also low. The use of C platforms (cMOOC) seem to have a small negative impact in the completion rate especially when it allows the use of more than one C platform (Fidalgo-Blanco et al., 2016).
- Heterogeneity in language skills (English being the common ground) seemed to be one of the biggest challenges for many of the Spanish-speakers (over 80% of the participants). In order to overcome this, written translations from English to Spanish was facilitated (e.g. subtitled videos) and some multilingual adaptations to the UniMOOC platform and interface translations were required.

## Promotion

In the table below it can be seen the promotion strategy established for MOOC2 – innovation, creativity and idea creation. The promotion was a lot more aggressive in the second edition than in the first one due to a larger variety of promotional tools used and a better strategy pointing towards target groups as defined beforehand. There are especially two main aspects that worth being highlighted:

1. The use of new promotional tools: among them, social media seemed to significantly contribute to achieving better impact reaching a higher number of potential MOOC users. It might be considered social media boosted the views of the promotional video on YouTube and, maybe, the number of enrolments. If we consider that part of the persons who saw the promotional video on YouTube also enrolled in the pilot MOOC, about 46% of them also enrolled in the first edition, while over 70% of them ended up enrolled in the MOOC in the second edition. It seems to be the impact of the social media tool. Among the new promotional tools, the use of “research media” (e.g. Research Gate) or “professional media” (e.g. LinkedIn) gave the project more visibility, but it is not clear the effect on the promotion of the pilot MOOC.

2. Moreover, it seems that the Unimooc platform and its network contributed to the promotion of the pilot MOOC being a large amount of the enrolment coming from this community.

Tool	1 <sup>st</sup> edition	2 <sup>nd</sup> edition
BizMOOC website	<ul style="list-style-type: none"> <li>2 news items (16/10/2017 &amp; 02/11/2017)</li> </ul>	<ul style="list-style-type: none"> <li>News item (31/01/2018)</li> </ul>
Youtube	<ul style="list-style-type: none"> <li>Promotional video with 975 views (02/11/2017)</li> </ul>	<ul style="list-style-type: none"> <li>Promotional video with 1150 views (02/11/2017)</li> </ul>
OGPI website	<ul style="list-style-type: none"> <li>News items included in the Newsletter and sent to 250 students, policy-makers, higher education professionals (25/10/2017)</li> </ul>	
E-mailing	<ul style="list-style-type: none"> <li>To over 20.000 UniMOOC users (students) potentially interested in this course topic (15/11/2017)</li> </ul>	<ul style="list-style-type: none"> <li>To over 20.000 UniMOOC users (students) potentially interested in this course topic (12/02/2018)</li> <li>To 2000 Universities and culture sector institutions from EU and Central Asia (targeted to academic society, learners, lecturers, educational policy makers interested in MOOCs) (03/02/2018)</li> </ul>
Research Gate		Updates; around 1000 Academic society, learners, lecturers, educational policy makers interested in MOOCs (03/02/2018)
LinkedIn		Article, read by around 22 users interested in MOOCs (04/02/2018)
Facebook		<ul style="list-style-type: none"> <li>Post in the European Students' Union Facebook page (15/02/2018)</li> <li>Followed by over 55K students, policy-makers, higher education professionals (over 1000 reads).</li> </ul>
Twitter		<ul style="list-style-type: none"> <li>Followers of European Students' Union twitter account</li> <li>Followed by over 7000 students, policy-makers, and higher education professionals.</li> <li>647 impressions (19/02/2018) and 453 impressions (13/03/2018)</li> </ul>

Table 2: Promoting strategies of MOOC2



## Learning Outcomes and Measurement

Before launching the first edition of this MOOC, the learning outcomes were defined as follows:

- Present creativity as a human innate capacity;
- Enable the deployment of creative potential;
- Understand a range of different techniques to generate ideas;
- Develop strategies and techniques for effective problem solving;
- Enable participants to identify mistakes and learn from failure
- Allow participants to get to know approaches and criteria for evaluating and selecting ideas

Table 3 depicts the measurement tools used for each one of the modules as well as their learning outcomes. It is worth mentioning that in a cMOOC, the evaluation system is not the same as in an xMOOC, but the combination of the two methodologies was employed in this case.

Module	Learning outcomes	Measurement
<b>1. Introduction to the course and creativity</b>	<ul style="list-style-type: none"> <li>• Get to know the course and its platform</li> <li>• Present creativity as a human innate capacity</li> <li>• Stimulate the deployment of creative potential</li> <li>• Communicate/get to know other learners in the same group</li> </ul>	<ul style="list-style-type: none"> <li>• Group activity: Unconventional Self-intro: Introduce yourself activity: "A photograph (a photo collage or video) that represents YOU. Discussion within the group.</li> <li>• Assessment: module test</li> </ul>
<b>2. Ideation techniques and different ways of thinking</b>	<ul style="list-style-type: none"> <li>• Get to know a range of different techniques to generate ideas.</li> <li>• Learn the difference between convergent versus divergent thinking</li> <li>• Be able to identify, use and discuss on ideation methods</li> </ul>	<ul style="list-style-type: none"> <li>• Group activity: Use one ideation techniques and come up with creative ideas on one of the suggested topics. Discuss others' ideas.</li> <li>• Assessment: module test</li> </ul>
<b>3. Critical thinking and problem solving methods</b>	<ul style="list-style-type: none"> <li>• Get to know what is critical thinking and the main steps of the process</li> <li>• Learn strategies and techniques for effective problem solving</li> <li>• Identify the steps to solving a problem effectively</li> <li>• Learn how to make the ideas visible, tangible and consequential</li> </ul>	<ul style="list-style-type: none"> <li>• Group activity: study a specific common problem and draft a fishbone diagram and explanation on ways to solve it. Analyse, discuss and evaluate others' outputs using a Google drawing template.</li> <li>• Assessment: module</li> </ul>

		test
4. Learning from failure and prototyping ideas	<ul style="list-style-type: none"> <li>Identify and accept failure</li> <li>Realise that you can actually learn from failure</li> <li>Prototyping ideas</li> <li>Get to know and use a concept map</li> </ul>	<ul style="list-style-type: none"> <li>Group activity: create a concept map for “personal brand creation” and share it. Sharing concepts map on how to create your personal brand. Discussion on others’ work.</li> <li>Assessment: module test</li> </ul>
5. Intellectual Property, Open Licensing and Idea Evaluation	<ul style="list-style-type: none"> <li>Improve the skills to search, reuse, adapt, and compose new solutions from already developed by the others ideas</li> <li>Get to know approaches to, and criteria and principles for, evaluating and selecting idea</li> <li>Improve the skills for defining and understanding different criteria for evaluating ideas.</li> </ul>	<ul style="list-style-type: none"> <li>Group activity: search for and evaluate “interesting” CC resources related to how can you improve your eating habits, how stop smoking or how get more self-organised. A minimum of 2 samples per enrollee ad to be located and shared in groups. The best ideas were voted and awarded.</li> <li>Assessment: module test</li> </ul>
6. Final assessment and group activity	<ul style="list-style-type: none"> <li>To demonstrate the skills acquired in generating, presenting and evaluating innovative ideas</li> </ul>	<ul style="list-style-type: none"> <li>A final test (10 questions)</li> <li>A group activity: “Jury of Ideas”: an innovative idea was presented per enrollee on a free topic and making use of the tools introduced in the course and afterwards discussed within the group.</li> </ul>

Table 3: Measuring the achievements of MOOC2

## Enrolments

It is worth mentioning that despite the rather low rate of enrolments in both editions over 60% of them were active participants. During the first run, over 4% of the enrollees completed the course while in the second edition only 1.66% managed to complete it. Additionally, over 80% of the enrollees represented Spanish-speaking countries.

	Enrolments	Active participants	Participants that completed the course
1st edition	451	295	20
1st edition %/total	21.67%	22.13%	42.55%
2nd edition	1,630	1,038	27

<b>2nd edition %/total</b>	<b>78.33%</b>	<b>77.87%</b>	<b>57.45%</b>
<b>TOTAL</b>	<b>2,081</b>	<b>1,333</b>	<b>47</b>

Table 4: Enrolments, active participants and completion

## Certificates

The certificates of completion obtained within this course counted for 47 enrollees, that is about 2.26% of the total number of participants in the two editions of this MOOC course.

## Evaluation

### Description of evaluation and quality assurance process

After the design and content was finished, several parties evaluated the MOOC and rich feedback was gathered. The review process consisted of two phases (before and after course), on different dimensions and with internal and external elements as described below.

### Review design

**1. External review by two external evaluators and internal review by two other MOOC teams:** each design was reviewed by the two other MOOC production teams of the BizMOOC project based on materials produced by the MOOC team (design document and the planning sheet excel) and a review form developed by leaders of WP4 and WP5 (a closed checklist and open comments). This review was done on the following quality dimensions:

- i. Fulfilling MOOC criteria
- ii. Content & activities
- iii. Applied IPR and licences
- iv. Language and accessibility
- v. Technical platform and support.

**2. Pre- and post external review by 17 experts**

- Before course start, 17 selected experts received a one-page summary on the design of the MOOC and (if requested) access to the MOOC platform to review the course content. They then answered a survey with six open questions. Question asked were for example: Is this MOOC of interest for your employees / students? What elements are most attractive and what (new) elements should be adjusted (incorporated).
- After the course, 18 selected experts received took part in focus groups, where similar questions have been asked and thus providing us feedback, if the course could fulfill the expert's expectations.

**3. Pre-course and post-course survey with learners** (151 and 19, respectively) to evaluate background, motives and feedback before and after taking the MOOC. Two surveys have

been designed (with joint elements for all MOOCs and specific additional questions to each MOOC) and implemented in the course. The pre-course survey contained 8 joint and 6 specific questions; the post-course survey contained 15 joint and 5 specific questions (see respective annexes below).

## Review before launch of MOOC

### External evaluators and two internal MOOC teams

The results of the reviews from one other MOOC teams and one expert were collected and combined by the quality assurance officer (see complete report as annex I). One team provided feedback before the first course edition started, the other team feedback was received before the second course edition.

Most feedback items were acknowledged but some improvements were not feasible to be implemented in the used MOOC platform. However, some elements were incorporated/improved in the first and second editions, such as:

- Teaser video was not available.
- Language parameter in links was not working
- Add more quizzes
- In each weekly session, the pedagogical team makes a synthesis of artefacts from the previous week's session
- Missing contents

### Actions taken for the first course edition:

- Teaser video was published
- An introductory video and a detailed description were produced and published for each course module.
- Platform multilingual management problems were fixed
- Missing contents were incorporated
- Other platform bugs were fixed

### Actions taken for the second course edition:

- Promotion started in advance
- An assessment test was added for each module
- Group management was changed to Google groups

Remarks on the production of original materials were not taken into account as the course is based on reusing open licensed contents.

### Results of pre-course survey by external experts

17 answers were received to the pre-course experts survey. Experts were contacted per personal email and/or via phone. Most of the experts were from the Higher Education sector. 3 experts belong to the communication/image and 2 were IT experts. Results are summarized below, highlighting in bold the most common answers. The complete report is in annex II.

Question	Feedback
1. Most relevant MOOC topics	<b>Critical thinking (7)</b> <b>Problem solving strategies (6)</b> Ideation methods (4) Learning from failure (3) Evaluation and selection of ideas (3) Creativity as a Life skill (3) IP and open licensing (2) Prototyping ideas (2)
2. Benefits for peers/target group (short term and long term)	<b>The course shows new ways of thinking and how to improve creativity (5)</b> <b>Developing critical thinking in the long term (5)</b> Improvement of the learning achievements (3) Useful for creating start-ups/ spin-offs (2) Not to be afraid of failure and learn from it (2) Being able to apply problem solving to daily life (2) Acquire different approaches to generate innovative ideas Improvement of key and transversal digital competences Improved ability to generate and present their ideas
3. Potential barriers for not enrolling or completing the course	<b>Lack of time necessary (7)</b> <b>Language barrier (6)</b> <b>Not applicable/interesting to individual's current work (5)</b> Not giving academic credits to students (1) Companies not recognize certificates (1) Difficulty (1) No barrier (1) Few promotion (1)
4. Is this reflective approach helpful	<b>Yes (15)</b> Don't know (2)
5. How appropriate is it to work through the course at your own pace	<b>It is the best way (11)</b> To some extent (2) Not appropriate (1)
6. How do you think a Completion Certificate will motivate participants to finish the course?	<b>Positively (14)</b> Not sure (2) Badges are also a good motivation (1)

## Summary of pre-course participant's feedback

The pre-course survey contained 14 questions were distributed to all course learners. Only 151 participants (7%) completed the pre-course survey. The main findings of this survey are described below.

It was the first time participating in a MOOC for 66% of participants.

The main reasons for taking the course (multiple selection):

- "To improve my skills" – 74,2 %
- "To learn new things" – 72,8 %
- "To improve my career options, maybe even get a (new) job" – 54,3 %
- "I have a general interest in the topic" – 47,0 %

Most of the MOOC participants were "*Employed full time (35 or more hours per week)*" – 40%, while the majority have University level of study (Bachelor: 31,3% and Master's degree: 22,7 %).

The age distribution is normal within the central age groups (20-29, 30-39, 40-49, 50-59) while it reduces in extreme values in both sides (under 20 and over 60).

Gender distribution is slightly uneven (male participants: 55,7% while female: 44.3%).

More than 46% of the participants were from Latin America and 33% from Spain.

More than 90% of participants consider themselves as creative persons (yes 62.9%, to some extend 27,8%).

94% of participants enjoy problem solving (yes 72,5%, to some extend 21,5%).

No specific required action was identified from this feedback (full report in annex III).

## Post-evaluation of the MOOC

### Post-course evaluation by external experts and focus groups

Number of post-course expert evaluations: 17

#### 1. Most relevant MOOC topics

Most experts specified that the introduction and motivation module is a good starting point while critical thinking and problem solving are the most relevant topics. There are also several remarks on ideation methods and the introduction to IP.

## 2. Is this MOOC beneficial?

This and other MOOCs are mostly seen as beneficial. The flexibility of this kind of courses makes.

In order to make it more beneficial:

- Ensure language translations to other local languages.
- Add more graphical resources such as infographics
- Add a short summary at the end of each module.
- Add more specific contents / improve contents
- Add different levels of deepening in the complexity of the subject.

## 3. Main identified barriers for enrolling this MOOC are:

- Language (although subtitles are much appreciated),
- Awareness of the existence of this kind of courses
- Lack of the (country/state) regulations and recognition.
- Access to technology or even internet connection

## 4. Is this MOOC competitive to similar offerings?

In general, it is considered mostly competitive because is free of charge. This seems to be a major advantage. It is also seen as an extensive recollection of materials. Additionally, it is an initial training in the subject

However this MOOC is considered to be too general in scope so could not be competitive to more specific courses. A formal diploma could make it more competitive.

## 5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale ...?

Yes, but some adaptations may be required:

- Content adaptations depending on the specific target audience.



- More practical cases are required.
- Different entry levels may be also required.
- Content improvement (a more ad hoc approach with more specific information)
- Local language content translation should be available for some audience/countries.

## 6. Main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training:

- MOOC costs can be a great issue. Production/platform costs have to be reduced.
- This (or any) MOOC has to fit into the company-training plan.
- (Contradictory) to give the students some kind of formal recognition for completion.  
(Other experts say the opposite) companies don't need certificates just

See full report as annex V.

### Summary of post-course participants survey

The number of post-course evaluations from learners is 18. Very few students sent this post-course feedback, constituting an insufficient sample size in order to generate precise conclusions. Taking this into account, we can extract the following interpretations.

Course expectations, materials/activities quality rate, length of the course, degree of difficulty, understandability and time spent were mostly positively valued.

While just 65% students were interested in a continuation of the course, all of the received feedback would recommend this course or other course from BizMOOC and would participate in other BizMOOC courses.

Enrolees feedback shows they improved skills on the main course topics.

No specific required action was identified from this feedback but only to better promote this survey within the course (full report in annex IV).

## Lessons Learnt

After running a second edition of the MOOC2, some lessons learnt could be highlighted as follows:

- **The promotion strategy** was not adequate on the first run, so it had to be improved for the second run obtaining better results by taking advantage of the two campaigns.
- For launching a cMOOC it is important to count with a **course platform** ready to incorporate cMOOC features. It was not necessary the case of Unimooc platform due to its vast experience mainly in xMOOC. Thus, a complete platform redesign might be almost certainly required. Grouping, forum, group activities and other community management features were not successfully adopted by participants in the first course edition.
- **Time restrictions** and timing of the target audience was a major barrier.
- The **completion rate** was lower than expected and this might have been at least due to:
  - Participants' interest only on some of the modules;
  - Participants lost interest after the initial module(s);
  - Language barriers faced by a large amount of participants.
- It is crucial to count with a good **pool of experts** in the field in order to make a good selection of topics, videos and materials as a base of the course and design an adequate group activity pool for boosting enrollees to get the best out of it in the most efficient way.

## Recommendations

Based on the lessons learnt, at least some recommendations could be underpinned.

- **Promotion and completion rate:**
  - For a good response to the promotion of this type of MOOC, it is better to start its promotion at least 2 months or more in advance. It may be required to differentiate promotion strategies to individual learners and to companies.
  - Promote course enrolment but also promote course participation and completion by means of a periodic direct communication with participants. This might impact positively on the completion rate.
  - Badges and a certificate of participation can serve to motivate and increase completion rate. Moreover, a formal course recognition with ECTS or similar is required for a higher involvement of enrolees.
- **Platform:** It is essential to choose carefully the platform provider depending on the MOOC type and the features to be used on it.
- **Course characteristics:** Provide different levels of complexity of the same subject might make it more competitive as the heterogeneity of enrolees might be a challenge which could considerably reduce their interest and motivation. Different course paths might be the way to do this.

## Good practice

1. **Linguistic tools:** A bi-lingual offer might be a good option to overcome language barriers of potential and/or actual users. This is the case of many of the MOOC2 users which enrolled in a course offered through a platform with a large offer for Spanish-speakers. The possibility of translating not just the written text, but the full content of the modules (including the videos) might facilitate the continuity of these users in the MOOCs offered in foreign languages (i.e. English) and thus reduce if not eliminate the dropout rate due to language barriers.
2. **Capacity to adapt and tailor the MOOC according to the needs of the users:** The number of users, the number of active users, the subject, etc. should define the type of MOOC. A cMOOC is not viable for a large amount of users with very little active users given the tools used for shaping the groups and activities and the artificial intelligent achievements as of today. A rapid adaptation of the MOOCs to the needs of the users might increase the level of activity and reduce the dropout rate.

## Conclusion

The second pilot MOOC fulfilled the criteria established in the proposal regarding the participation items and resulted in many learnings regarding future editions of this kind of MOOC.

The topic is interesting for many potential users, but it should be better tailored and differentiate by complexity level as the heterogeneity of the enrolees clearly conducted to a high dropout rate.

The combination of higher education institutions and business representatives is always an advantage to consider when shaping courses adapted to the real needs of enrolees and the industry. Still, strengthening this kind of networks would facilitate even more tailoring courses with a continuous updated perspective.

The course evaluation was carried out through different methods: 151 enrolees, 17 experts, 2 MOOC developer teams and 2 external experts facilitated their perspectives. In this sense, the

evaluation conducted is generally positive, with the above mentioned major learning for future joint university-business endeavours in the business MOOC domain.

Only 47 enrolees completed the whole course, this meaning a completion rate (2.26%) lower than the expected one according to the literature (5-15%) that seem to be mainly due to the too general perspective of the course and the clear lacks of language skills of many of the enrolees. Learners underlined Critical thinking and Problem solving as the most interesting topics.

From this Pilot MOOC, many valuable findings and several recommendations were drawn accordingly. They have been reflected with lessons learnt and feedback from two other Pilot MOOCs in the business domain and implemented in the course of the BizMOOC project. They are fed into a separate document streamlining bottom-up recommendations around four strategic areas (see BiZMOOC result 4.3 Lessons Learnt, Recommendations and Good Practice).

## References

- Belanger, Y., Thornton, J. (2013). Bioelectricity: A Quantitative Approach. Duke University's First MOOC. <http://dukespace.lib.duke.edu/dspace/handle/10161/6216>
- Cabero, J., Llorente, M. C., y Vázquez, A. (2014). Las tipologías de MOOC: su diseño e implicaciones educativas. Profesorado. Revista de Curriculum y formación del profesorado, 18(1), 13-26.
- Cabero-Almenara, J., Marín-Díaz, V. y Sampedro-Requena, B. E. (2017). Aportaciones desde la investigación para la utilización educativa de los MOOC | Research contributions on the educational use of MOOCs. Revista Española de Pedagogía, 75 (266), 7-27. doi: <https://doi.org/10.22550/REP75-1-2017-01>
- Downes, S. (2009). Connectivism Dynamics in Communities. <http://halfanhour.blogspot.com/2009/02/connectivist-dynamics-in-communities.html>
- García-Peñalvo, F.J. (2016). Experiencia MOOCs. Caso de Estudio Grupo GRIAL. Retrived from <https://repositorio.grial.eu/bitstream/grial/695/1/ExperienciasMOOC.pdf>
- Fidalgo-Blanco, A., Sein-Echaluce, M.L., García-Peñalvo, F.J. (2016). From massive access to cooperation: lessons learned and proven results of a hybrid xMOOC/cMOOC pedagogical approach to MOOCs. International Journal of Educational Technology in Higher Education, 13:24 DOI 10.1186/s41239-016-0024-z
- Joksimović, S., Zouaq, A., Kovanović, V., Gašević, D., Jovanović, J., Hatala, M. (2015). What do cMOOC participants talk about in Social Media? A Topic Analysis of Discourse in a cMOOC. LAK '15, March 16 - 20, 2015, Poughkeepsie, NY, USA, <http://dx.doi.org/10.1145/2723576.2723609>
- Jordan, K. (2013). MOOC Completion Rates: The Data. <http://www.katyjordan.com/MOOCproject.html>
- Siemens, G., (2005). Connectivism: A learning theory for the digital age, *Int. J. Instr. Technol. Distance Learn.*, 2(1), 3–10.
- Siemens, G., (2010). Teaching in Social and Technological Networks, *Connectivism*, 16-Feb-2010.

## Annexes

### Annex I: Full Feedback external reviewers and two internal teams

#### First Evaluation Report Design of MOOC#2

Version 17-10-2017

- Based on first feedback by one team (not complete) and one external evaluator (complete)
- Waiting for the feedback of the other team and other external evaluator. Hence an updated report will be distributed later
- Please try to improve the MOOC#2 as suggested and/or tackle the problems mentioned. Each section ends with a comment field for your reaction – please use these to state what you can (not) implement and why?

#### Resources made available for evaluation

- Design of MOOC [according Excel template](#)
- [Link to course](#) Please note that the UniMOOC platform uses google single sign-on, so it will ask your authorisation to use your Google account for identification purposes. Please, contact me if you have any problem accessing.
- Marketing
  - Description on BizMOOC website: [How to generate innovative ideas and how to make them work](#)
  - Teaser video available soon

#### Review marketing material

- The teaser is not available on the date of this evaluation.
- Clicked on the hyperlink from the PDF (description MOOC) and got automatically to the Spanish version of UniMOOC. If you are not registered on UniMOOC or saved a cookie with that setting the default language of the complete website should be English.

*Darco; I checked this comment. At the end of pdf with description a link is given and indeed some parts are in Spanish.*

- The MOOC pdf is a little bit too long. It would help if there were just a brief description of each module/week and not that much detail. Four pages are too much to read to build up interest.
- We haven't seen the teaser, but it is of utmost importance that the whole page is translated, either way it gives an impression of being a bit sloppy, also it is not that clear where to change the language which is at first Spanish (and most of our target audience is probably English-speaking > maybe change that?)

## Your reaction as MOOC team related to marketing material

- We don't agree with the following statements because.....
- We (partially) agree with statement/suggestion ..... and will improve that before launch of the MOOC
- We (partially) agree with statement/suggestion ..... and will improve during MOOC operation and/or as improvement after MOOC has ended (for next cycle after project lifetime)
- We (partially) agree with statement/suggestion ..... but cannot improve this because....

## Check if online course meets the MOOC criteria

Two scores are seen as inadequate by external evaluator

- Educational content may include Video – Audio - Text – Games (incl. simulation) – Social Media – Animation
- Study guide / syllabus includes instructions as to how you may learn from the presented materials and interactions

The rest of indicators on MOOC criteria are seen as largely achieved or fully achieved by external evaluator



The peer-to-peer review by another team sees these two above as a problem as well. In addition they see the following scores as inadequate

- All people can enrol without limitations
- Offers possibilities for interaction, such as social media channels, forums, blogs or RSS readers
- Participants are provided with some feedback mechanism. Can be automatically generated (e.g., quizzes), only by peers (peer feedback) and/or general feedback from academic staff, etc.
- Always includes some kind of recognition like badges or a certificate of completion. A formal certificate is optional and most likely has to be paid for.

### Comments / suggestions for improvements

Even when I changed my language to English I see Spanish text from the platform.



All quizzes show their results automatically after the submission. The exams are community-based. The activities do not increase the efforts of the academic staff.

There is no feedback at all from the academic staff. The credits could be a problem for a fair result of the assessments (see later on).

It would be great if the activities or at least the exams could have more information about how the task looks like in detail. Maybe an example of how the result could look like etc. I was not able to completely understand the huge textarea (field) of each exam. Do I only use the textarea to post a hyperlink to a Google Doc?

Module 6: Last video (embedded youTube Video) doesn't play.

- More activities
- More original material
- Better design of the tasks
- A bit more engaging and interesting tasks should be provided
- More insight on third party content should be provided
- More quizzes
- And more ways to communicate and collaborate with other users
- Also the final tasks should be redesigned to provided clearer and more complex problems to solve

### Your reaction as MOOC team related to MOOC criteria in general

- We don't agree with the following statements because.....
- We (partially) agree with statement/suggestion ..... and will improve that before launch of the MOOC
- We (partially) agree with statement/suggestion ..... and will improve during MOOC operation and/or as improvement after MOOC has ended (for next cycle after project lifetime)
- We (partially) agree with statement/suggestion ..... but cannot improve this because....

### Check on quality of the design of MOOC

Many scores related to the design are seen as inadequate by both external evaluator and (the incomplete) peer-MOOC team

- For each target group the needs, challenges, prerequisites and prior knowledge are described.

- The "pathways" (activities, tasks and routes) are designed in such a way that they can be performed at different levels of difficulty or complexity, to account for the broad spectrum of participants' knowledge and skills that is expected.
- The MOOC contain differing levels of difficulty, with different learning pathways
- The course contains sufficient interactivity (learner-to-content, learner-to-learner or learner-to-teacher) to encourage active engagement.
- A range of assets are used
- A range of examples is used in the text and any assets (e.g. videos). These should be diverse and not reinforce stereotypes.

The external evaluator in addition feels that the following criteria are not or only partially achieved

- The MOOC is realistic in its pacing for the participant, accommodating to the individuals personal rhythm
- The frequency of monitoring been planned (forum, group, post)
- A weekly announcements or massive mailing with orientations for the following week is planned
- In each weekly session, the pedagogical team makes a synthesis of artefacts from the previous week's session
- Some live-events (Hangout, Tweepchat) are scheduled
- Learning outcomes are assessed using a balance of formative and summative assessment appropriate to the level of certification.
- Assessment is explicit, fair, valid and reliable. Measures appropriate to the level of certification are in place to counter impersonation and plagiarism.
- Participants can earn a badge/badges for completion of learning activities

The peer-to-peer review by another team in addition sees the following scores as inadequate

- A clear statement of learning outcomes for both knowledge and skills is provided.
- There is reasoned coherence between learning outcomes, course content, teaching and learning strategy (including use of media), and assessment methods.

- The prior knowledge of each learning objective is described and related to characteristics of target groups
- Activities aid participants to construct their own learning and to communicate it to others.

### Comments / suggestions for improvements

By peer-to-peer review by another team

We did not finish the table as the course provided for evaluation is clearly unfinished, and we think it wouldn't be fair to judge it on the half product that we received. But we do strongly recommend to put a larger variety of videos (at the beginning it's mostly TED videos), and more importantly activities for participants, as the course is not very encouraging to work together

Some general issues provided are

general issues:

- add at least one video per week that shows the face of a teaching team member
- add more quizzes.
- finish platform translation (we only reviewed the English version, maybe the Spanish one is much more complete?)
- fix texts > especially describe the tasks more clearly > we have been stuck in the activities
- fix tasks.
- complete missing material,
- provide more detailed description to the external videos (what is the aim of the exercise? What to do (not just "share a comment"? Why has this external source been selected, include references/credits? Maybe highlight special parts of the videos, summarize the most important content > this would significantly improve the course
- fix English language issues > a native speaker should correct at least the largest issues (especially the explanations of tasks have to be 100% clear, otherwise learner don't know what to do)
- when you open the course link, everything is in Spanish >> if we send the invitation to our networks, we need to have the English version first > can there be 2 links (1 for Spanish first, 1 for

English first?)

#### Some detailed suggestions

- Some strings on the platform (system text) are not translated, e.g. the list of countries in registration is Spanish only.

Module 1 - lesson 1 some spelling/grammar mistakes (in most o) Module 1 - lesson 2 is missing  
There course consists only of videos from external sources.

- There should be at least one video per week where the someone from the course team is visible (at least some sort of introduction and overview of the week's material) I would also suggest to add more quizzes.

- Module 1 - lesson 6: Wording needs to be fixed. It took me quite some time to understand what might have been meant.

The actual test <http://psychologia.co/creativity-test/> it is absolutely unclear what I have to do.

It seems as if the button "take test" brings me to a grammarly ad but not to the test.

Module 1 - exam: This needs to be done with the rest of your group. What group? It is very important to add a description how the groups will be formed, how the collaboration should be done, etc.

- Task 1 (optional) and task 2 (compulsory) are identical.
- When I take the exam, I'm out of the course. It is hard to get back.
- Module 2 - lesson 1: the text needs to be formulated more elaborately/verbose. Currently, it looks like a todo-list for the teaching team Module 2 - exam: exact same link as in module 1
- Module 3 - lesson 7: description of the task is unclear.

- Module 4 - lesson 1: content missing
- Module 6: missing
- Diploma 7,99 - we are not allowed to ask for money in this EU-funded course... is there a way to offer this for free?

By external evaluator

There are no “pathways” but the very open task-description allows the participant to fulfil the exams at their individual skill/knowledge level.

Within the peer-to-peer evaluation credits are given for each submitted task (by the participants). What happens when a group (of friends) enrolls the course and they give each other the credits.

What happens when one participant got not enough credits by the end of the course because other participants did not rate his submission?

There is no reward for completing a module.

Most of the lessons only have videos and less text/images. So a better mix is required. Provide a summary underneath the YouTube (TED) videos.

The progress bars show how many lessons are completed but do not show what is missing. Although the progress bar says “8/8 lessons passed” it is still not light-green (which indicates that the module is completed). There should be something like “exam not passed” or “task not completed”. Feedback from

the system itself is missing here.

### Your reaction as MOOC team related to design of MOOC

- We don't agree with the following statements because.....
- We (partially) agree with statement/suggestion ..... and will improve that before launch of the MOOC
- We (partially) agree with statement/suggestion ..... and will improve during MOOC operation and/or as improvement after MOOC has ended (for next cycle after project lifetime)
- We (partially) agree with statement/suggestion ..... but cannot improve this because....

### EC / BizMOOC visibility

Three scores are seen as inadequate by external evaluator

- Visual Identity to BizMOOC in videos
- Activities are included which redirects the learners to the MOOC BOOK and where they have to comment and feedback some content?
- Course (and resources like video) contains the standard EC disclaimer for EC-funded projects

The rest of indicators on EC / BizMOOC visibility are seen as largely achieved or fully achieved. peer-to-peer review by another team sees almost all criteria as not achieved.

### Your reaction as MOOC team related to EC / BizMOOC visibility

- We don't agree with the following statements because.....

- We (partially) agree with statement/suggestion ..... and will improve that before launch of the MOOC
- We (partially) agree with statement/suggestion ..... and will improve during MOOC operation and/or as improvement after MOOC has ended (for next cycle after project lifetime)
- We (partially) agree with statement/suggestion ..... but cannot improve this because....

## Accessibility

Regarding accessibility four scores are seen as inadequate by external evaluator

- Compliant to W3C accessibility
- Compliant to WCAG 2.0 according to EC
- Implemented the Guidelines for Accessible Information
- Participants are able to download, store, and use resources without an internet connection

The rest of indicators on accessibility are seen as largely achieved or fully achieved

## Comments / suggestions for improvements

There are less HTML ALT attributes in a manual proof of the HTML code.

The official W3C Validator was not able to access and examine the complete source code. The ALT-Attribute is an alternative text and is useable by the screen reader (for example for blind people).

Although there is not very much text and images in this MOOC a print function or a "save to pdf" possibility would help to read offline. In combination with summaries of the YouTube videos a great enhancement.

Team: Again – we'd like to see the full product, but the subtitles in videos would be a must



## Your reaction as MOOC team related to accessibility

- We don't agree with the following statements because.....
  
- We (partially) agree with statement/suggestion ..... and will improve that before launch of the MOOC
  
- We (partially) agree with statement/suggestion ..... and will improve during MOOC operation and/or as improvement after MOOC has ended (for next cycle after project lifetime)
  
- We (partially) agree with statement/suggestion ..... but cannot improve this because....

## Annex II: Full pre-course expert survey

Name	Organisation	1. In your opinion, which topics of the MOOC are the most relevant for your peers/target group?	2. What benefits do you see for your peers/target group short term and long term?	3. In your opinion, what are the potential barriers for your peers/target group not enrolling or completing the course?	4. This MOOC invites participants to reflect on creativity and generating innovative ideas; in your opinion, is this reflective approach helpful to your peers/target group?	5. In your opinion, and bearing in mind your peers/target group, how appropriate is it to have participants work through the course at their own pace?	6. Upon completion, participants will receive a Completion Certificate; how do you think this will motivate them to finish the course?

MN	Burgas University	Free	All six topics	Short term: To gather knowledge in creating ideas, language improvement, introduction to MOOC; Long term: Enhanced capabilities for entrepreneurship and start-up activity; critical thinking and creativity development.	Language barrier, time necessary to spend for successful completion	Yes, certainly	Very appropriate and beneficial	That will motivate them very much since it creates a competitive advantage for them at the labor market.
SS	University prof. dr. Asen Zlatarov		Critical thinking and problem solving techniques and methods, evaluation and selection of ideas-solutions as well as IP and open	more active participation in the learning activities and proactive approaches as a short term effect. Improved ability to generate and present their ideas	The main barrier could be timeframe - course end is around Christmas. Language barrier also could be an	Yes, definitely it is very helpful.	The possibility participants to be able to work with their own pace is a good solution because the students from different	The completion certificate with mentioned equivalent in ECTS will be very motivating for the University

		licensing	in more feasible way.	obstacle.		Universities, specialties and so on have different time schedules.	students.
RS	PR Manager of RHM-Burgas	The main activity of our organisation is closely connected with creative industries. The methods for generation and presentation of ideas, for evaluation of ideas and selection of the optimal solutions for ideas' implementation are really	Improvement of key and transversal digital competences of the participants will result in the improvement of the professional performance.	The course is developed in English and this will be an obstacle for some of the people. The other problem could be the possibility the participants to be able to follow the course time schedule	By my opinion the approach is helpful.	Yes possibility for working with own pace is very appropriate.	The completion certificate could be considered as motivating factor.



		important.		week week.	by			
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EN	Burgas University	Free	Intrapreneurship – Make your business great again, How to generate innovative ideas and how to make them work	Through these courses, students will be able to understand the concept of intrapreneurship, develop their perception of business opportunities at work and convert problems or challenges into opportunities, enhance their understanding and ability for forming coalitions around new business ideas, understand how they may deploy their creative potential, how they may	Since the courses do not give academic credits to students, as well as the employers difficult to accept / recognize these certificates, the students aren't motivated to enrolling or completing a course.	Since my students are engaged in computer science, for them will be useful knowledge of a range of different techniques to generate ideas, as well as to acquire skills and abilities for elaborate of diverse and original ideas with fluency and speed and ability to use logical and evaluative	One of the advantages of online courses is that participants have the opportunity to learn new material at their own pace. This makes them desired by the learners.	It's important to give the students some kind of recognition for completion, as this will encourage them to continue working through further courses. Certificates are one of the ways in which to encourage learners after they complete every course.
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			<p>apply strategies and techniques for effective problem solving, which are relevant knowledge and skills for future computer science specialists.</p>		<p>thinking to critique and ideas best suited for given situations.</p>		
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YH	UNWE	Critical thinking and problem solving methods will be very useful and helpful for the target group of students at an Economic University.	There are a lot of benefits in short and long term. MOOC will develop the entrepreneurship thinking of the participants and will improve their understandings for some technics of generating a creative and innovative ideas. They will learn what critical thinking is and how to use it in difficult cases. Improving the skills to search, reuse, adapt, and compose new solutions from already developed	I think the main crux for the participants is to find an innovative idea, which they will present at the last module.	In my opinion this reflective approach will be very helpful to my target group of students at an Economic University, because of the developing the creative thinking of them and other useful things, as I describe in the previous answers.	It will be relevant to have participants working through the course at their own pace, because the speed of work and understanding is different, because the free time of the students is variant.	I think that the certificate is the most motivating thing for the students and they will make everything possible to do the course to the end.
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			by the others ideas are some of the advantages.				
SD	International University, Kazakhstan	IT	Critical thinking and problem solving methods Learning from failure and prototyping ideas	In the short term, students will expand the range of their analytical capabilities, which will help them solve learning problems. And in the long	The main thing that comes to mind – it is mediocrity	Modern conditions require non-standard solutions. Journalists must follow the rules and laws, but at	I think this is acceptable, and perhaps even optimal, given their overall workload. It is difficult to answer, someone will be motivated. In any case, the certificate is good.

			term it will be extremely necessary, since a journalist must necessarily have the skills of critical thinking.		the same time should avoid stamps and be creative. Electronic or convergent journalism is particularly sensitive in this matter.		
AK	Abay Myrzakhmetov Kokshetau University	I think each module is usefull for each student, but the most usefull is M5 Intellectual Property, Open Licensing and Idea Evaluation. Because it is possibility to show to the students what it is Intellectual	The benefits that they will receive excellent competences, skills in How to generate innovative ideas and how to make them work. It will give us opportunity to prepare high quality specialists for a labor market.	I do not see any barriers for the target group which do not give them to complete the course.	Surely this MOOC is helpful for the target group because it will help them to understand how they can generate new ideas and projects.	i think that creating new ideas will help them in the future work.	Surely it will motivate them to finish the course.



		Property, Open Licensing and Idea Evaluation.					
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FB	University of Melbourne	Lesson 3 on creating and maintaining a culture of creativity and collaboration within an organisation	My research focus is on collaborative research organisations. creating a culture that emphasises and facilitates the creative behaviour of individuals is critical for research organisations working at complex, ill-defined, state-of-the-art scientific problems. Unleashing the creative behaviour and providing the tools to leverage this process is, in my view, one of the ways of actively creating a	Not being able to see an immediate applicability of these concepts in their current work.	I think it is very useful, and a good general introductory material that can cater to different target groups.	I think it is desirable and may be even better if deployed in small groups so there is an element of group accountability to maintain engagement.	Maybe. Having it listed in their LinkedIn in might also be relevant.
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			<p>culture of creativity and collaboration (something still poorly understood by many organisational leaders).</p>				
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PC	Freelance consultant	IT	The most relevant topics for my target group in this course are: idea generation methods and learning from failure.	The main benefits I see are: 1. Learn different approaches to generate innovative ideas, and 2. not to be afraid of failure and learn from it.	The potential barriers I see are: not having interest on the topic and lack of free time to complete the course modules.	Yes, this approach seems quite convenient.	It seems quite appropriate, however group activities may require to have same pace among all participants.	I think a certificate will motivate participants to finish the course so they can have a proof of participation. However I see that badges are also a good motivation to finish each course module.
Sukhov Mikhail Vasilievich	Kostanay State Pedagogical Institute		Critical thinking, problem solving, selection the best idea and prototyping	The immediate benefit is expected to be the improvement of the learning achievements of the involved students due to	For some could be a language barrier and for the other probably the timeframe.	The innovation and creativity are important in every domain of activity so the benefits of a course like this	The students from different courses and specialties have different schedules and the possibility they to work	To obtain the certificate issued by EU institutions is additional motivation.

			their enhanced critical thinking and problem solving abilities.		are indisputable.	through the course at their own speed is very important.	
VD1	Kostanay state pedagogical institute	Module 3: Critical thinking and problem solving methods - because the target group has a restricted form of thinking.	short term benefits - formulating real goals and solving real life situation at their subject domain. long term - developing critical thinking and avoiding standardised approach.	low motivation to think outside the box	very helpful due to giving an opportunity for them to be heard	very convenient - gives a freedom to be phisically 'anywhere' but mentally - united.	undoubtedly! any document proving participation will be included in their portfolio!
VD2	Kostanay state pedagogical institute	The topic concerning identifying stakeholders, target groups and	This course is aimed at promoting students' thinking as a future teacher	The barrier is in the mentality or traditional way of	reflective approach is of the great importance as it	it is important to have an individual approach not only in terms of	Any certificate or document gained is important and it stimulates

		sponsors of intrapreneurial projects, students' start-ups	capable of making new ideas work.	thinking	demonstrates the outcome of the course	the content, but also in terms of pace of mastering the skills.	the process of further development.
María Isabel Sáez Martínez	Graphic designer - Freelance	The most relevant topics for me are: ideation methods, critical thinking and problem solving methods.	The main benefit in the short term is the improvement in the creative process. In the long term, the training in the different methods and tools acquired with the course facilitates the resolution of problems in any area of our lives.	The potential barrier is the time factor.	This reflective approach is very useful because it encourages us to leave the comfort zone, look for creative solutions and properly structure ideas with the aim of improving the processes within our work.	It is very important to allow each person to develop the course at their own pace adapting it to their personal circumstances, environment... One advantage is that the forum allows consulting the contribution of each participant at any time.	It is a stimulus when developing the course but not a final goal in itself



Quique	Quique	Creativity as a Life skill	Enhancing creativity thinking and applying the innovation in the workplace	People thinking the creativity is not a relevant topic in their work or in their daily lives	This approach is really helpful to be brilliant designing new products or to face new challenges	It is appropriate due to each one can spend their own free time in course the MOOC	Although the really important is coursing the MOOC to acquire the valuable knowledge, receiving a completion certificate can be an incentive to finish the course
Silvia G. Ponzoda	Biblioteca Virtual Miguel de Cervantes Foundation	I have found very interesting the ideas about divergence thinking.	The course shows new ways of thinking and how to improve creativity and that's very useful indeed for an organization as the one I work, for	Probably, for some of them it would be the language.	Yes, It is very useful.	It is the best way because so we can do it at the best time for us.	Yes

			instance.				
Virginia Ferrer	University of León	To get to know different techniques to generate ideas and how to evaluate them; to learn how to conduct critical thinking and what is the main process; learn about different strategies and techniques for an effective problem solving; learn how to make ideas visible, tangible and	To improve their capacities, avoid failure when creating or promoting new ideas.	To not know the existence of this course; and lack of time to enrol in new courses.	Yes, very much indeed.	This course is appropriate to anyone who wants to sharp their skills on creating and developing new ideas.	A completion certificate always helps participants to engage in new MOOC courses.

		consequential; how to identify failure ideas and learn from it; to use the concept map to prototype good ideas; and to improve the set of skills that will help to shape and promote pertinent ideas, such as how to search, reuse, adapt and compose new solutions.					
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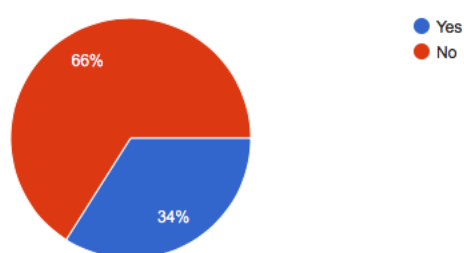
Denise Galvin	Freelance Higher Education consultant	I don't have target groups. Could be very helpful for those wanting to become self employed.	It seems that these courses could be very useful for those thinking about start-ups, spin-offs etc	The platform probably needs more work. What is offered in English does not come up in Español or Catalan. I am sure if everything on offer was in all languages it would be more accessible for those interested in Spain or Latin America.	Yes	I can't give a definitive answer. It probably would be better for those taking the courses and those administering courses if there were time limits imposed to finish courses.	I am not sure, depends on the validity of the certificate and how it counts towards a degree, technical course etc
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## Annex III: Full pre-course participants feedback

Complete questionnaire data: [google sheet](#)

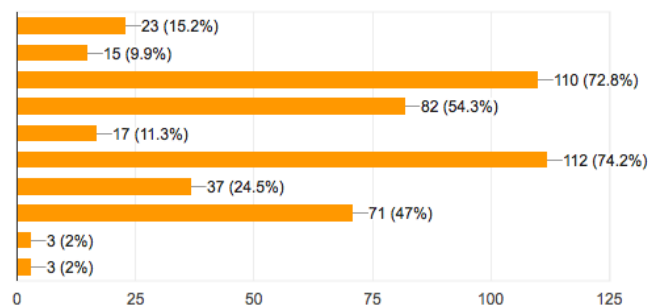
Is this the first time you take part in a free online course?

150 responses



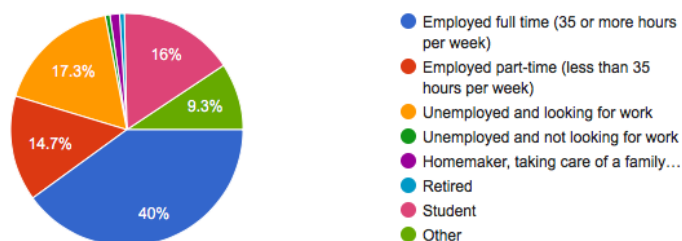
What are your 3-4 main reasons for taking the course?

151 responses



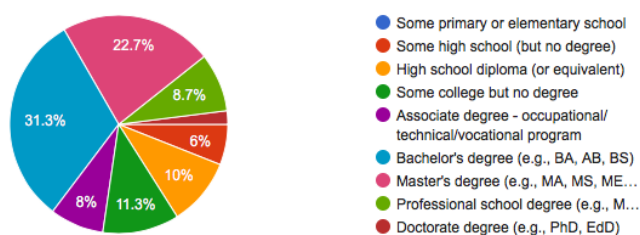
### Which of the following best describes your current employment status?

150 responses



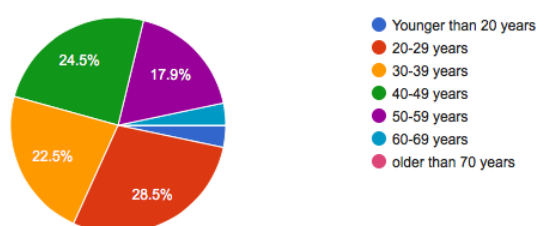
### What is the highest level of study you have completed so far?

150 responses



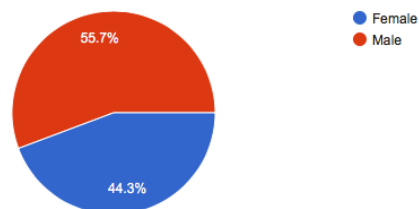
### How old are you?

151 responses



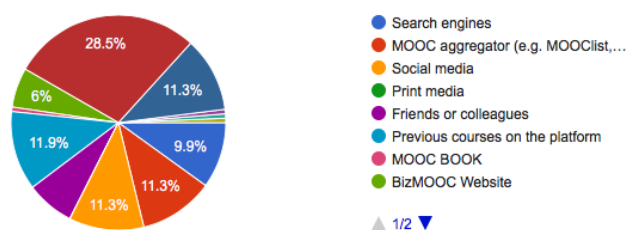
## What is your gender?

149 responses



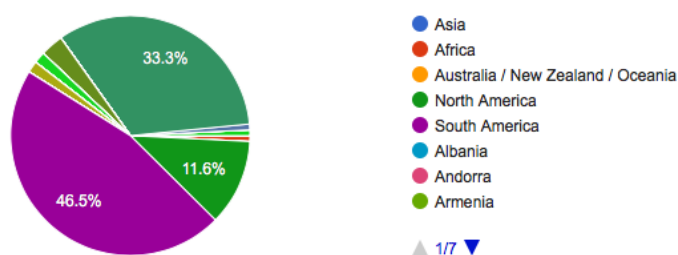
## Where did you learn about the course?

151 responses



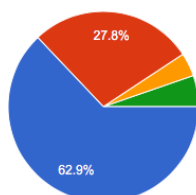
## Which country do you live in?

129 responses



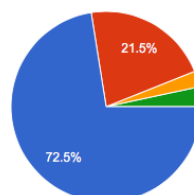
### Do you consider yourself a creative person?

151 responses



### Do you enjoy problem solving?

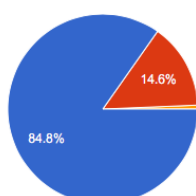
149 responses



● Yes  
● To some extent  
● No  
● Not sure

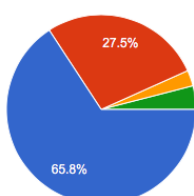
### Do you like to experiment new activities?

151 responses



### Are you willing to discuss your own ideas with other people?

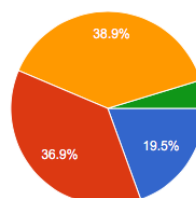
149 responses



● Yes  
● To some extent  
● No  
● Not sure

### Are you afraid of failure?

149 responses



● Yes  
● To some extent  
● No  
● Not sure

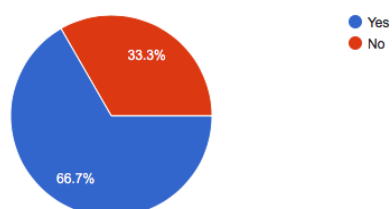


## Annex IV: Full post-course participants feedback

Complete questionnaire data: [google sheet](#)

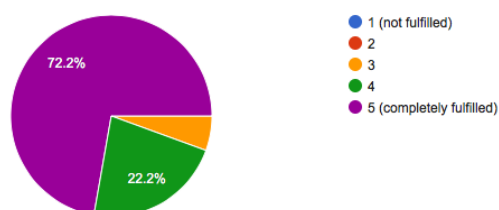
Was this the first time you took part in a free online course?

18 responses



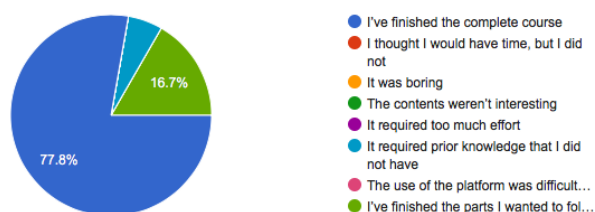
Were your expectations for the course fulfilled?

18 responses



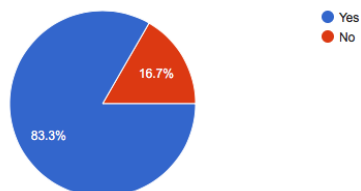
Did you complete the course?

18 responses



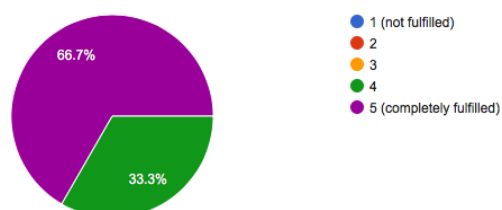
Did the opportunity to earn a course certificate and/or module badge encourage you to complete the course?

18 responses



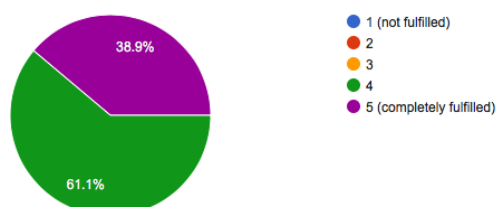
How would you rate the quality of the course materials?

18 responses



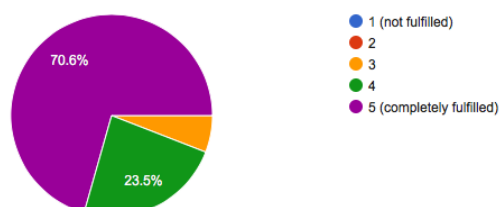
How would you rate the quality of the course activities?

18 responses



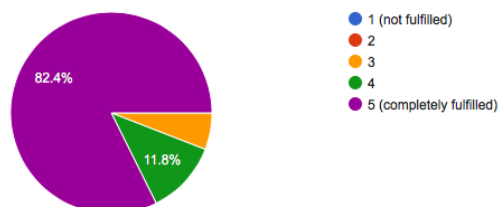
How would you rate the length of the course?

17 responses



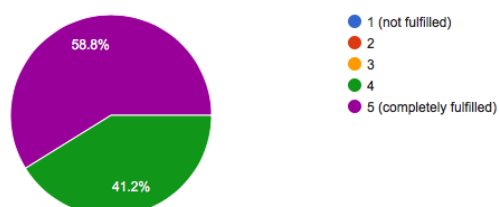
### How would you rate the degree of difficulty of the course?

17 responses



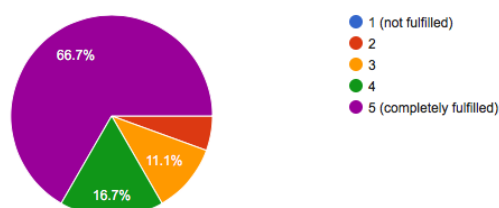
### How would you rate the understandability of the course?

17 responses



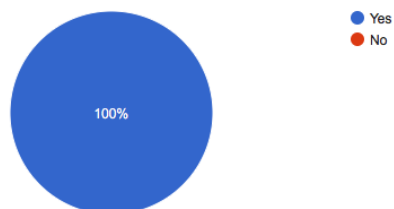
### How much time did you spent on average on the course per week?

18 responses



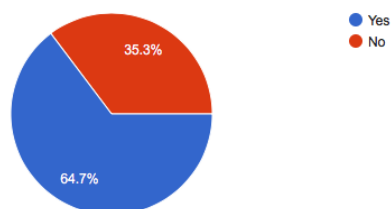
Would you recommend the course to others?

17 responses



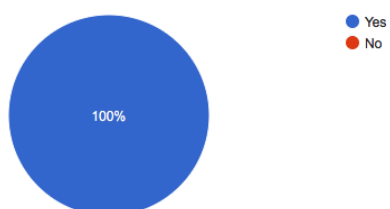
Would you like a continuation (Part 2) of the course?

17 responses



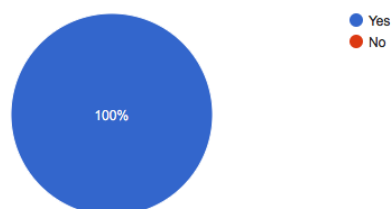
Would you participate in another course from BizMOOC?

18 responses



Would you recommend courses from BizMOOC to others?

18 responses



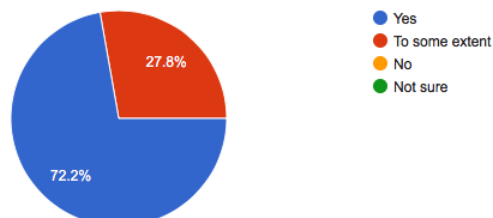
If you have any other comments, please feel free to add them here

1 response

Interesting

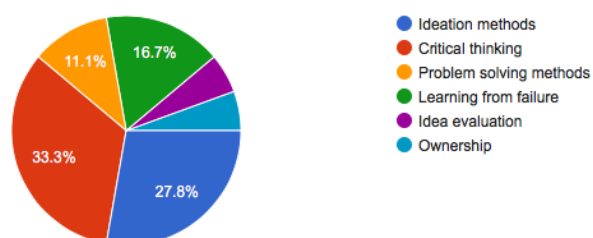
Do you consider the skills in idea generation obtained during the course have improved your creative capacities?

18 responses



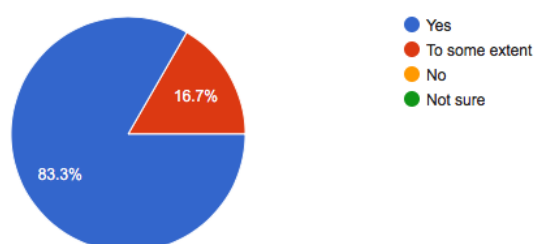
Which of the course main topics do you find more interesting?

18 responses



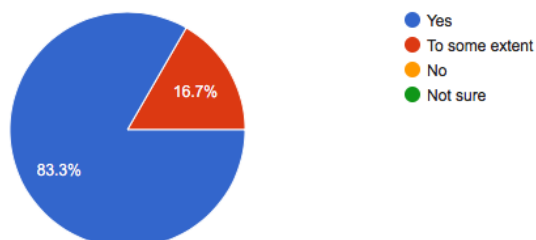
Do you feel more motivated to have your own ideas and make them work?

18 responses



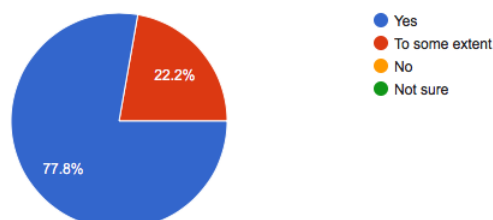
Do you consider that the course improves your problem solving skills?

18 responses



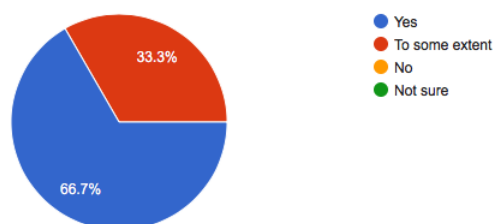
Do you feel more confident to share and discuss your own ideas with other people?

18 responses



After the course, do you think that you ability to learn in positive from failure experiences is improved?

18 responses



## Annex V: Full post-course evaluation by experts and focus group

### BFU FOCUS GROUP

Details:

Method of collecting responses: The questions were distributed via e-mail and experts were asked to send their feedback as reply writing their answers on the questions.

Questions:

The questions are separated in 2 groups: mandatory questions and optional questions.

This document contains the responses provided by the experts from the focus group of Burgas Free University. The feedback provided by every expert is structured in separate section.

### Professor – UNIVERSITY ASEN ZLATAROV" – BURGAS

Questions 1 to 6 are mandatory:

#### 1. Which topics of the MOOC did you find most relevant for

☐ yourself?

Critical Thinking, problem solving, Prototyping, Intellectual property, Idea evaluation

☐ your peers/target group (your employees/colleagues/students..)?

Critical Thinking, Ideation, problem solving, Prototyping, Intellectual property

☐ (optional) Why were they relevant?

Engineering sciences

#### 2. Do you see the MOOC as beneficial for your peers/target group (short-term ; long-term)?

☐ If so, why? And what can be done to make the MOOC even more beneficial?

In order to be more beneficial the courses should be adapted in line with the concrete dimensions of the targets – language, cultural and educational context, specifics of the application domain.

**o If not, why? What are the main challenges to overcome or is this impossible?**

MOOC are beneficial for students as well as for the lecturers of our university too, but because the regulation at National and University level is missing they can be only complementary to the other training offers.

**3. What are the main barriers for your peers/target group for enrolling in this MOOC?**

The main barrier is the lack of the regulations, and recognition.

**4. Is this MOOC competitive to similar offerings to your peers/target group so far? I.e., compared to both in-house / outsourced training and courses in classroom setting or other online courses.**

Lot of case studies and examples for real life applications, flexible time schedule,.

**5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale in both your organisation and in other organisations throughout Europe? (If so, give details....)**

Yes, it is possible to offer this MOOC to our organisation but only as additional enhancement of some courses or courses' parts.

**6. What are the main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training?**

The course to be more easy discoverable and multilingual support to be assured.

**Questions 7-13 are optional questions:**

**7. How would you attempt to improve this MOOC? What would be the key areas of focus?**

Extending with more examples related to the domain (in my key Engineering sciences)

**8. Have you already seen a MOOC with similar content? If so, what differences did you observe?**

The most courses do not provide information about intellectual property and open licensing

**9. What do you perceive to be the main issues affecting uptake of training and development in business?**



Problem solving, critical thinking, creativity and innovation are important everywhere

10. How can technology be used to improve business education? (invite detail)

Delivery of HQ education on global basis

11. What message do you have for policymakers in the European area?

They should think about recognition and accreditation and about assuring support for MOOC initiatives

## University Professor – Kokshetau University Abay Myrzakhmetov, Kazakhstan

Questions 1 to 6 are mandatory:

**1. Which topics of the MOOC did you find most relevant for**

- ☐ yourself?
- ☐ your peers/target group (your employees/colleagues/students..)?+
- ☐ (optional) Why were they relevant?

In my opinion the modules 3, 4, 5 are the most important parts of the course because if you want to write a start up or a business plan and you don't know these main points it will be difficult to write a really successful project plan.

**2. Do you see the MOOC as beneficial for your peers/target group (short-term ; long-term)?**

- ☐ If so, why? And what can be done to make the MOOC even more beneficial?
- ☐ If not, why? What are the main challenges to overcome or is this impossible?

Currently this MOOC is a really beneficial for students and also could be interesting for the teaching staff of our university too, but it could be better if the MOOC was available in Russian language.

**3. What are the main barriers for your peers/target group for enrolling in this MOOC?**

The main and the only barrier is the language barrier.

**4. Is this MOOC competitive to similar offerings to your peers/target group so far? I.e., compared to both inhouse / outsourced training and courses in classroom setting or other online courses.**

I suppose yes, because the MOOC has the main points the target group needs. And it will be good if it will be possible for a student to ask the lecturer some questions online.

**5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale in both your organisation and in other organisations throughout Europe? (If so, give details....)**

Yes, it is possible to offer this MOOC to our organisation.

**6. What are the main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training?**

The information could be available on the official web-site of the university, instagram, VK, Facebook of the university. The MOOC is very interesting and useful. But for our students the main difficulty is a language barrier.

**Assoc. Professor – BFU, Bulgaria**

**1. Which topics of the MOOC you found most relevant for yourself your peers/target group (your employees/colleagues/students..)?**

Ideation methods, Critical thinking and problem solving methods

**2. Do you see the MOOC as beneficial for your peers/target group (short-term ; long-term)?**

Through the course, students will be able to understand how they may deploy their creative potential, how they may apply strategies and techniques for effective problem solving, which are relevant knowledge and skills for future computer science specialists.

**If so, why? And what can be done to make the MOOC even more beneficial?**

Since my students are engaged in computer science, for them will be useful knowledge of a range of different techniques to generate ideas, as well as to acquire skills and abilities for elaborate of diverse and original ideas with fluency and speed and ability to use logical and evaluative thinking to critique and ideas best suited for given situations.

**3. What are the main barriers for your peers/target group for enrolling in this MOOC?**

Since the course does not give academic credits to students, as well as the employers difficult to accept / recognize these certificates, the students aren't motivated to enrolling or completing the course.

**4. Is this MOOC competitive to similar offerings to your peers/target group so far? I.e., compared to both in house / outsourced training and courses in classroom setting or other online courses.**

**5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale in both your organization and in other organizations throughout Europe?**

It is possible since the online course gives opportunity for participant to learn new material at their own pace, which makes them desired by the learners.

**6. What are the main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training**

It's important to give the students some kind of recognition for completion, as this will encourage them to continue working through further courses. Certificates are one of the ways in which to encourage learners after they complete every course.

**Professor – RHM – Burgas, Bulgaria**

**Questions 1 to 6 are mandatory:**

**1. Which topics of the MOOC did you find most relevant for**

**o yourself?**

Learning strategies and techniques for effective problem solving

Stimulate the deployment of creative potential

**o your peers/target group (your employees/colleagues/students..)?**

Ideation, thinking out of the box, critical thinking, problem solving

**o (optional) Why were they relevant?**

Art and culture domains

**2. Do you see the MOOC as beneficial for your peers/target group (short-term ; long-term)?**

**o If so, why? And what can be done to make the MOOC even more beneficial?**

**o If not, why? What are the main challenges to overcome or is this impossible?**

Yes, it is beneficial at short as long as in long-term. People can learn or follow specific instruction to help them complete certain task or take on new knowledge without the need to spend too much time away from their work place or the need to learn everything at once.

Make it easier to find more topics, ready MOOCs, easier enrolling and offer the MOOCs in more languages.

Main challenge is to get wider user-base and more MOOCs being offered to users. For that it is important to popularize the usefulness of MOOCs.

**3. What are the main barriers for your peers/target group for enrolling in this MOOC?**

Language.

**4. Is this MOOC competitive to similar offerings to your peers/target group so far? I.e., compared to both inhouse / outsourced training and courses in classroom setting or other online courses.**

Yes it is competitive, but needs further popularization

**5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale in both your organisation and in other organisations throughout Europe? (If so, give details....)**

Yes, as long as it offer MOOCs about relevant topics to me and my organization, and as long as it offers them in understandable language for them.

**6. What are the main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training?**

The main issue is to find experts, who can create MOOCs at cost that are economically acceptable for the organization and in a language that the employees can use.

**Questions 7-13 are optional questions:**

**7. How would you attempt to improve this MOOC? What would be the key areas of focus?**

*Adaptation to the culture sector target group*

**8. Have you already seen a MOOC with similar content? If so, what differences did you observe?**

*I have seen similar courses. This is well structured and organized especially second edition.*

**9. What do you perceive to be the main issues affecting uptake of training and development in business?**

*Creativity is important for every profession*

**10. How can technology be used to improve business education? (invite detail)**

*Provision of flexible and open education*

**11. What message do you have for policymakers in the European area?**

*Regulation for accreditation and recognition of skills and competences*

## UA Focus Group a

- IS. Freelance Graphical designer.
- PC. IT Consultant. Non disclosed IT consultancy firm.
- EM. IT analyst and programmer. Lucentia Labs.

Moderator: Francisco Gallego (UA)

### Methodology

- Questions were distributed to focus group participants in advance.
- 30 minutes Adobe Connect on-line session discussing each point on the list that time allows.
- Answers from each expert are compiled question by question.

### Focus group minutes (11/05/2018 16:30-17:30)

#### 1. Which topics of the MOOC did you find most relevant for yourself / your peers/target group (your employees/colleagues/students..)?

IS: I really liked the MOOC. Applied mainly to my work, the graphic design, I liked the first part of motivation (as it is sometimes necessary to put yourself in the skin of a child to have innovative ideas) and the methodology to follow so that the final result is the optimum . It helps a lot to structure thoughts, to follow a process, so that we do not get lost. This MOOC highlights the important aspects to make decisions, solve problems and get a final job according to the needs of the client is easier.

EM: The general feelings about this MOOC have been quite positive. My work is more technical and I do not approach this type of creativity in my work. I appreciate what the course provides because it gives you a way of thinking that helps you face problems you face on a day-to-day basis. The most relevant modules are:

- Introduction and motivation: gives the general concepts of the course and serves to land a little on this subject
- Ideation methods because it provides a list of methods to systematically address a project

PC: My work is also more technical. I have been very interested in the issue of intellectual property because many times we use third-party software and develop software that we do not know how to distribute. Having an objective point of view about all this helps a lot.

## 2. Do you see the MOOC as beneficial for your peers/target group (short-term ; long-term)?

- If so, why? And what can be done to make the MOOC even more beneficial?
- If not, why? What are the main challenges to overcome or is this impossible?

IS: I do see short and long term benefits for both me and a target audience (eg students in a design course). The flexibility of the course seems important to me because we are all involved with our lives, work and so on. The possibility of accessing the course at any time, participate in the forum and see what others comment regardless of the time we each take we think a good idea.

EM: On the one hand I think it is beneficial, in the idea of what I said before, that in particular it is not a topic in which we (technicians) have specific training in the subject. On the other hand, for the same reason you may find too much difficulty so some type of prior training may be necessary.

PC: I believe that the most positive point of the MOOCs is the ease of use and the accessibility of the content. The flexibility of the course in the sense that it is difficult to take time to attend classes with a fixed schedule, MOOCs provide ease to attend this type of course. There are also problems, such as language, because sometimes the courses are not in a language accessible by students

- And what can be done to make the MOOC even more beneficial?

IS: I agree that it is necessary to have a prior knowledge of some terms. In this type of course, videos use a terminology that may not be clear to students. I would love that at the end of each module a summary scheme was shown, as a kind of infographic that gave the key to what has been seen in each lesson. There is a lot of information and a short summary would be good at the end of each module. Language is another subject that I consider important. There may be some difficulty in following the videos in English. In some cases there were translations in others activating the subtitles made things easier.

EM: I would emphasize that it is more schematic, even before taking the course to have a guide of what is going to be seen. To have more structured content and to differentiate in levels of deepening in the subject.

PC: The language issue is an important barrier. Being such an extensive course, the student has to adapt to the course, which could be solved.

## 3. What are the main barriers for your peers/target group for enrolling in this MOOC?

IS:

- Language. Although there are some translations.
- This platform, as a suggestion, could improve navigation between courses, modules and lessons.

EM: The language can be a barrier but it is appreciated that they are subtitled to soften the problem. Knowing the existence of these courses, advertising could be improved. You may not be aware of their existence and be very useful to you.

PC: language and I would add the lack of a legal framework for accreditation.

**4. Is this MOOC competitive to similar offerings to your peers/target group so far? I.e., compared to both inhouse / outsourced training and courses in classroom setting or other online courses.**

IS: I do not have a clear opinion about this issue at all. A great effort has been made to collect information and draw a line of the creative process from motivation to how ideas arise and how to be innovative. I have seen information on other sites about these issues but not a structured compilation like this MOOC.

EM: Comparing it with similar offers of company training is better because not all companies have something similar. As for price is unbeatable. I think it has a clear structure and order in the content.

PC: It is free and the knowledge that is taught is interesting so it is competitive.

**5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale in both your organisation and in other organisations throughout Europe? (If so, give details....)**

IS: Yes, I think it's possible to offer it on a large scale. It should be more adapted to the target audience and its level of education. It can help me in my creative process, but it also can be applied to other areas of life.

EM: It would be necessary to adapt with different levels of complexity.

PC: In the case of my organization, saving the language, it could be applied with some adaptation of the content.

**6. What are the main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training**

IS: As we have said, it would be necessary to adapt the contents. (In this case) there are contents of different origins. It depends on how the company participates in the creation of these MOOCs, it can be done in it adapting the content to their needs.

EM: This (or any) MOOC has to fit into the work that the company does and its training plan. If these requirements are not met, I find it difficult to adopt them on a large scale. For the rest, it is affordable that this type of training can be adopted.

PC: I agree with my colleagues. Thinking about my company, I believe that translation is important.

7. How would you attempt to improve this MOOC? What would be the key areas of focus?

IS: Create more own content. The use of other existing content is fine, but the initial or final summaries had to be improved with a more elaborate outline.

EM: I agree with the need of own content applicable to your field. I would add real life examples.

PC: Customize the course to a specific audiences.



## UA Focus Group b

- SG – Communication expert, Digital Library
- DB - MOOC student
- ST - MOOC student
- CM - MOOC student
- BE - MOOC student

Moderator: Francisco Gallego (UA)

### Methodology

- Questions were distributed to focus group participants in advance.
- 30 minutes Adobe Connect on-line session discussing each point on the list that time allows.
- Answers from each expert are compiled question by question.

### Focus group minutes (14/05/2018 9:30-10:30):

#### 1. Which topics of the MOOC did you find most relevant for yourself / your peers/target group (your employees/colleagues/students..)?

SG: In general, all course topics are interesting, but the most relevant for me is critical thinking in order to get innovative thinking. The basics on intellectual property are also quite useful.

DB: Critical thinking and problem solving are the most interesting to me.

ST: I agree with my colleague student Debora,

CM: on intellectual property and group activities were quite interesting.

BE: Critical thinking and learning from failure.

#### 2. Do you see the MOOC as beneficial for your peers/target group (short-term ; long-term)?

- If so, why? And what can be done to make the MOOC even more beneficial?
- If not, why? What are the main challenges to overcome or is this impossible?
- And what can be done to make the MOOC even more beneficial?

SG: Yes, MOOCs are quite beneficial as they allow you to learn with great flexibility, and in this case it is free of charge and provides knowledge that you may not have.

DB: In general they are beneficial because it is easy to access this wide variety of contents.

ST: I think they are beneficial as long as they have enough quality, are free of charge and you have the option to get a diploma. And of course MOOCs' flexibility helps a lot.

CM: I agree with my colleagues.

BE: I also agree but I want to add that ease of use and quality of contents are the most important points here.

### **3. What are the main barriers for your peers/target group for enrolling in this MOOC?**

SG: The main barrier in my company is the language. Subtitles were quite useful, but it is better to hear your own language. For some people this implies not to even consider enrolling the course.

DB: In my case, as Italian, following a course in English is the opposite to a barrier, in my case it make me more interested me in the course. On the other hand, content complexity may require a previous background in some points.

ST: I would like to remark the promotion on the course, some other fellow students were not aware of the course.

CM: I agree that promotion may be better. Accessibility can also be improved.

BE: Not issuing a diploma is the main barrier I see.

### **4. Is this MOOC competitive to similar offerings to your peers/target group so far? I.e., compared to both inhouse / outsourced training and courses in classroom setting or other online courses.**

SG: I general, I think it is competitive although some things may be improved.

DB: *(non audible – lost connection)*

ST: The option to have a diploma could make it even more interesting.

CM: I agree but being free of charge.

BE: Yes it is competitive.

### **5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale in both your organisation and in other organisations throughout Europe? (If so, give details....)**

SG: Yes, completely possible but maybe having a more ad hoc approach with more specific information.

DB: Yes, I think so although some contents may require to be adapted to the company specifics.

ST: I think having an English version it is enough for large companies all over Europe. Being an open platform I see that it can be beneficial to some companies.

CM: I agree with my colleagues.

BE: I would remark that content and methodology fit to company needs in terms of training.

## **6. What are the main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training**

SG: For small companies, MOOC costs can be a great issue.

DB: I agree with SG, cost is an important issue.

ST: I would add that a personalized support may be required in companies.

CM: Language can be an issue.

BE: Production course and language are a great issue.

## UA Focus Group c

- GP – University Internationalisation Expert
- MV - Entrepreneur in Guatemala and Former Development Officer
- VF – Senior International Project Manager, Spanish University

Moderator: Francisco Gallego (UA)

### Methodology

- Questions were distributed to focus group participants in advance.
- 30 minutes Adobe Connect on-line session discussing each point on the list that time allows.
- Answers from each expert are compiled question by question.

### Focus group minutes (14/05/2018 16:30-17:30):

#### 1. Which topics of the MOOC did you find most relevant for yourself / your peers/target group (your employees/colleagues/students..)?

GP : Individually, I think this kind of courses end up being quite fruitful. Learning of failure and basic intellectual property are the most interesting aspects for me. For employees, I think the most relevant topics critical thinking and problem solving.

MV: From my point of view, critical thinking and problem solving are the most important topics in the course as we can use them in our day to day lives. For my colleagues, I personally found interesting all the topics, but ideation methods and learning from failure are quite important for any entrepreneur.

VF: Personally, I found interesting the given IP basics as it is something new to me, as well as the specific tools and methods on how to create new ideas and improve your creativity. For other target group, such as employees/colleagues I will also remark two topics: critical thinking and problem solving that could be applied in different knowledge areas.

#### 2. Do you see the MOOC as beneficial for your peers/target group (short-term ; long-term)?

- If so, why? And what can be done to make the MOOC even more beneficial?
- If not, why? What are the main challenges to overcome or is this impossible?

GP: Yes. I would say that this courses providing us an update on any aspects related to learning to come up with new ideas and entrepreneurship is always beneficial. The flexibility to access

this kind of courses is a great advantage compared to traditional learning (face to face). However there are some points that could be improved.

MV: I think it is beneficial, e.g. in Guatemala there is a huge amount of people that want to be entrepreneurs, create an start-up or new business with great ideas but don't know even how to start. Therefore I think it is quite beneficial. For example, It is important to know how to make a prototype because many people start without even knowing how to present a new product/service idea.

VF: I fully agree with the others, MOOCs are beneficial. There is a wide offer of courses that let you deepen in known topics, start learning new ones, strength knowledge in your area of expertise, etc. I see many advantages in MOOCs.

- **And what can be done to make the MOOC even more beneficial?**

GP: As many people can access this courses, it is not easy to dig into concrete aspects. Perhaps MOOCs are maybe more appropriate for introductory topics, most of the time as a basis to later on follow a more limited(personalized) learning approach. We could face language issues as we may have people from different countries not know the main international languages (e.g. English). It could be required to include more specific topics, as (company) employees may require more specific knowledge rather that students.

MV: In my environment, language is the most important. Besides, offline access to the course could be quite beneficial

VF: More promotion, in order to reach more participants. To have a more formal certification, such as a University diploma. Provide more contents, more readings, even more videos, more real life examples.

### **3. What are the main barriers for your peers/target group for enrolling in this MOOC?**

GP: Depending on the participants' background, they may face some technical problems if they don't know this kind of courses. Language is also a barrier. Diplomas may not be so important for companies rather to practically demonstrate any acquired knowledge.

MV: Language for sure, English is huge barrier in my country. Internet connection is not such a problem here.

VF: I agree on the language barrier and I would add to be aware of the course itself, if the course is not in any of the main platforms like EdX or Coursera, you may get fewer opportunities to get the link to the course.

**4. Is this MOOC competitive to similar offerings to your peers/target group so far? I.e., compared to both inhouse / outsourced training and courses in classroom setting or other online courses.**

GP: In general, MOOCs are quite competitive as issuing a diploma is not so important. If we have into account that this course is free of charge, it is certainly competitive. In terms of quality, as an introductory course, this MOOC is competitive but for a more specific knowledge other courses could be better.

MV: It could be competitive as an initial stage for a start-up or back to basics of a company in order to get employee capacitation. Specially taking into account that it is free of charge.

VF: I think contents have to be improved in order that this MOOC can compete with other options.

**5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale in both your organisation and in other organisations throughout Europe? (If so, give details....)**

GP: It is absolutely required to improve this MOOC contents for this. This improvement has to take into account that there are not only students, but employees, so more practical cases are required.

MV: I agree.

VF: I also agree.

**6. What are the main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training**

GP: Several issues. When talking of training in companies the objective is to obtain a competitive advantage. If you share this advantage with others, you will lose it or you can't take. Companies may use SPOOCs or other rather than MOOCs.

MV: As a learning support activity it is right but, It may require more practical activities and to use the course to build your own practical exercise.

VF: I would say that a MOOC is not a tool for training your employees rather than an personal initiative of each individual. So I don't see MOOCs as the main tool for training.

## ITV Focus Group

### EXPERT 1 FROM THE SLOVAK REPUBLIC

#### 1. Which topics of the MOOC did you find most relevant for

- o yourself?

Ideas creation

- o your peers/target group (your employees/colleagues/students..)?

All of them

#### 2. Do you see the MOOC as beneficial for your peers/target group (short-term ; long-term)?

- o If so, why? And what can be done to make the MOOC even more beneficial?
- o If not, why? What are the main challenges to overcome or is this impossible?

Yes, long term.

#### 3. What are the main barriers for your peers/target group for enrolling in this MOOC?

English language only.

#### 4. Is this MOOC competitive to similar offerings to your peers/target group so far? I.e., compared to both in-house / outsourced training and courses in classroom setting or other online courses.

Yes it is.

#### 5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale in both your organisation and in other organisations throughout Europe? (If so, give details....)

Yes

#### 6. What are the main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training?

Business usually have their own open education platforms

## EXPERT 2 FROM THE SLOVAK REPUBLIC

**1. Which topics of the MOOC did you find most relevant for**

**o yourself?**

Module 2 and 5.

**o your peers/target group (your employees/colleagues/students..)?**

Module 2, 5 and 4.

**2. Do you see the MOOC as beneficial for your peers/target group (short-term ; long-term)?**

**o If so, why? And what can be done to make the MOOC even more beneficial?**

**o If not, why? What are the main challenges to overcome or is this impossible?**

Yes, language (if more languages were available).

**3. What are the main barriers for your peers/target group for enrolling in this MOOC?**

Language.

**4. Is this MOOC competitive to similar offerings to your peers/target group so far? I.e., compared to both in-house / outsourced training and courses in classroom setting or other online courses.**

Yes.

**5. Do you see possibilities to offer this MOOC (and other MOOCs) at a large scale in both your organisation and in other organisations throughout Europe? (If so, give details....)**

Yes, employments agencies.

**6. What are the main issues to facilitate the wide-scale uptake of this MOOC (and other MOOCs) in business training?**

Language barrier.

**8. Have you already seen a MOOC with similar content? If so, what differences did you observe?**

Language barrier (in my region)