

Report of the third Multiplier Event of the Tox-Oer project
- Learning Toxicology Through Open Educational Resources -
The Multiplier event took place at the University of Porto, in Portugal on the 31th of May 2017.
Project Number 2015-1-ES01-KA203-015957

The main propose of the TOX-OER project is to develop a transnational learning approach, based on a Massive Open Online Course, shortly known as MOOC, on the theme/area of TOXICOLOGY.

Having in perspective, the goal of becoming a pedagogical tool for the development and sharing of knowledge and skills, TOX-OER also promotes access to active learning and mobility opportunities in this field of study.

In the process of developing MOOC contents, its primordial to have a diverse group of testers that can in the end evaluate as well as disseminate the MOOC itself. Testing the structure, the different contents, the usability of the different parts, the overall quality of the content, as well as other details were import aspects of the event at University of Porto. The main objective and the main idea to organize the Multiplier event was to **promote the integration of learning environments into existing curriculum as well as future commercialisation of end product.**

Envisaging dissemination, exploitation and transfer of the Project's results, the University of Porto has set a clear dissemination strategy for the promotion and organization of the TOX-OER Multiplier Event held at the Faculty of Pharmacy of the U.Porto, on the 31st of May 2017.

To this end, the Multiplier Event was widely disseminated among potential interested parties:

- i) Academic community of U.Porto partner international higher education institutions;
- ii) External students (including mobility students from related study areas);
- iii) Professors in the toxicology subject area from National Higher Education Institutions, namely from the University of Coimbra, University of Lisbon, University Fernando Pessoa, CESPU (School of Health Sciences – North);
- iv) Professionals in the Toxicology and Pharmacy subject areas, such as representatives from Professional Bodies (Medical, Pharmaceutical, Nursing), representatives from national pharmacies (placement providers for U.Porto students), from pharmaceutical companies, and the

pharmaceutical distribution sector;

v) Academic associations, such as the Portuguese Society of Pharmacology (Toxicology Section);

vi) National 'community' of e-learning specialists (professors and technical staff working with e-learning and new education technologies);

Moreover, the Multiplier Event organized at the University of Porto was actively promoted, making use of U.Porto's internal communication channels, in close connection with the Coordination, namely through:

i) U.Porto Pedagogical Innovation Website – Programme and Information of the Event published on March 2017 (<https://inovacaopedagogica.up.pt/mea/projetos/>)

ii) E-mail to the above identified target audiences - to more than 300 e-mail recipients in total – sent out on the 24th of April (2nd reminder sent on the 16th of May 2017). Confirmations were also sent by e-mail to all registered participants between the 22nd and 30th of May.

iii) U.Porto Newsletter (shared in social media pages e.g. Facebook) and News Portal on the 7th of June 2017 (<https://noticias.up.pt/multimedia/mooc-na-area-da-toxicologia-lancado-na-u-porto-video/>);

iv) Graphic and Promotional material (posters displayed in the Faculty of Pharmacy) and TOX-OER merchandising distributed during the Event among all participants, Tox-Oer folder with (tox-oer pen, tox-oer paper, tox-oer phones, U.Porto phones, U.Porto flyers and Certification of presence).

v) Photographic and Video coverage of the TOX-OER Multiplier Event (31st of May) published in the U.Porto Pedagogical Innovation website and U.Porto Youtube Channel on the 7th of June 2017 (https://www.youtube.com/watch?v=dRdX_umlxNM)

vi) The university of Porto Facebook.

vii) Personal invitations, bay email and direct contact.

viii) Invitation of intervenient from previous Multiplier Events, also involved in the project form other universities.

All invited interested participants have registered between April and May 2017, via an individual online form (available in: <https://goo.gl/forms/ZbnctfdjIXkB5TBL2>). As described above, the presence of all participants was later confirmed by e-mail, given the large capacity of the selected infra-structures (Faculty of Pharmacy's Auditorium).

On the day of the event we had many participants, especially at the open session in the morning. Nevertheless, the total of eligible, national

and international participants, under the rules of allocation of funding for the Multiplier Event budget heading (according to Erasmus+ Programme's Action 2 Strategic Partnerships funding rules) was 40. Detailed information regarding the (40) eligible participants can be consulted in the below table.

Country	Institution's name
Slovenia	University of Ljubljana, Faculty of Pharmacy
Portugal	Requinte - Rede de Química e Tecnologia
Portugal	CIIMAR - Centro Interdisciplinar Investigação Marinha e Ambiental
Portugal	Requinte - Rede de Química e Tecnologia
Portugal	Requinte - Rede de Química e Tecnologia
Portugal	Faculdade de Farmácia- Universidade de Coimbra
Portugal	Requinte - Rede de Química e Tecnologia
Portugal	Farmácia Teixeira Lopes
Portugal	Farmácia Carreço
Portugal	Grupo Sofarma
Algeria	Université Mentouri Constantine 1
Brasil	UFCSPA
Morocco	UCAM
Brasil	Unifesp
Portugal	CIIMAR - Centro Interdisciplinar Investigação Marinha e Ambiental
Turkey	Ankara University
Brasil	Universidade Federal Rural do Rio de Janeiro
Portugal	CIIMAR - Centro Interdisciplinar Investigação Marinha e Ambiental
Brasil	Universidade Federal de Ciências da Saúde de Porto Alegre
Portugal	Faculdade de Farmácia da Universidade de Lisboa
Portugal	Requinte - Rede de Química e Tecnologia
Portugal	Farmácia Barreiros

Portugal	Faculdade de Farmácia da Universidade do Porto
Brasil	UFGD - Universidade Federal da Grande Dourados
Spain	Universidade de Salamanca
italia	università di bologna
Camboja	Royal University of Agriculture
Portugal	Universidade de Coimbra
Portugal	IBILI, Faculdade de Medicina da Universidade de Coimbra
Egypt	Cairo University
Portugal	Requinte - Rede de Química e Tecnologia
Portugal	Universidade Fernando Pessoa
Cote H'Ivoire	University of Naxigui Abrogoua
United Kingdom	University of Strathclyde
Portugal	Universidade de Lisboa
Portugal	Requinte - Rede de Química e Tecnologia
Portugal	Requinte - Rede de Química e Tecnologia
Portugal	iMed.UlIsboa, Faculdade de Farmácia da Universidade de Lisboa
Slovenia	University of Ljubljana, Faculty of Pharmacy
Portugal	Requinte - Rede de Química e Tecnologia

The 3rd multiplier event, took place at the faculty of Pharmacy, of U.Porto. It was a 1 day event, from 9h00 to 16:30

The event was structured in two different parts.

Morning:

- An open session, with 4 presentations mainly related with pedagogical issues, with about 30min each.
- Coffee break
- A final discussion with all the participants, promoted by the 4 speakers.

1 - Learn Toxicology with Open Educational Resources Fernando Remião	2 - Learn Toxicology with Open Educational Resources Ana Morales
3 - MOOC - Evaluation and certification Ana Dias	4 - MOOC - Models and benefits Margarida Amaral

Lunch break - A lunch was offer to all participants, it was an important moment to have some time to relax and meet some people in a more informal way.

Afternoon:

From 14h00 to 16h00, participants had the chance to try the Toxicology MOOC, in a practical session. A short explanation on how the MOOC works was given, as well as the necessary information to enter the platform and access the MOOC (login/password). <https://toxoyer.com/> Participants had the opportunity to explore the modules that were available, at their own pace as well as clarify doubts right away. There were 3 students from the Pharmacy faculty available to help and clarify any doubts.

The program that was disclosed and distributed to all participants in the folder, can be consulted below or at following link, <https://drive.google.com/file/d/0B9qQfd9QNUpsdEdBRXrvWWo5MUE/view>.

Multiplier Event MOOC TOXICOLOGY

31ST OF MAY 2017 = 9H00 – 16H00

ICBAS/FFUP BUILDING - AUDITORIUM



PROGRAM

09h00 - 09h15	Welcome and participants reception
09h15 - 09h30	Opening session
09h30 – 10h30	TOX-OER Project presentation and accreditation/recognition challenges Ana Morales - Project Coordinator Fernando Remião - U.Porto
10h30 – 10h45	Coffee-Break
10h45 – 11h15	MOOC – Models & Benefits Margarida Amaral – UPdigital – Educational Technologies
11h15 – 11h45	MOOC – Evaluation and Accreditation Ana Dias – TecMinho
11h45 – 12h30	Discussion
12h30 – 14h00	Lunch at the foyer
14h00 -15h00	Testing TOX-OER MOOC
15h00 – 15h30	Discussion
15h30 – 16h00	Final Remarks and Closing session Fernando Remião – U.Porto



The morning presentations:

The 4 presentations were very interesting and crucial for the dissemination of the project. The 2 first ones were more technical and demonstrative presentations, the 3rd and 4th presentations had a focus on the pedagogical and fundamentals of Mooc courses.

Fernando Remião and Ana Morales, centre on the objectives of the Toxicology MOOC itself, the way it's organize, how it works as well as how it can be used, by students, teachers, companies, labs and other institutions. How open resources can be a good way to spread knowledge.

Ana Dias and Margarida Amaral, were more concentrated on the benefits of using MOOC as a teaching and instruction tool. How a MOOC course can be integrate in the curriculum, and how can be an upgrade for the student and the teacher. Other aspects like the benefits of using the diferente contents in diverse situations were also pointed out by Ana Dias and Margarida Amaral, two specialist in the area of e-learning. For business and companies MOOC's provides a very flexible way to update and increase staff knowledge.

Aspects related to certification and accreditation were also taken in account, as it is a very sensitive mater and can be solve in many diferente ways. Bothe invited speakers referred examples of MOOC's and how they worked in general.

The quality of the MOOC it is a key issue in the design of the MOOC itself. It is primordial to have in mind the correct use of the Learning Outcomes in all process of design as well as how it is deliver to the student. During the presentations and morning discussion, it was referred the importance of having clearly explained how recognition and certification is or is not credit.

MOOC's are seen as a different form of learning, were student/user can go at his own pass, can just take part of the course and use it just to take doubts or acquire more knowledge on a specific subject/mater. Or as most universities are trying to work on, as a certified course, with ECTS credit units.

MOOC accreditation was one of the main topics during discussion at the end of the presentations, during open session. For a course to be certified many aspects have to be taken in account from the beginning of the creation of the MOOC itself. Thinks like: a) the structure of the course, b) learning outcomes well stablish so students know how and what they are supposed to learn? c) hours of independent study required? d) how are the students evaluated? e) how are students evaluated, has to be f2f? f) what is the grade weight of on-line assessments? g) on-line exams with no supervision count?

All this questions don't have an exact answer but are part of an ongoing pedagogical process that it is very important to move on and discuss,

so we can create better changes for students and other individuals interested in learning more and better.

The afternoon practical activity – using the MOOC TOX-OER

The afternoon was many a practical activities to test the TOX-OER platform. The educational contents made available online, through the TOX-OER MOOC platform, are structure in seven modules, with the aim of integrating them into existing Toxicology programs, with formal recognition through ECTS, for certification purposes.

As the target audiences of the MOOC TOX-OER is the academic community, students and teachers, as well as professionals in the Toxicology subject area, the afternoon session had a diverse group of participants.



Evaluation of the Event

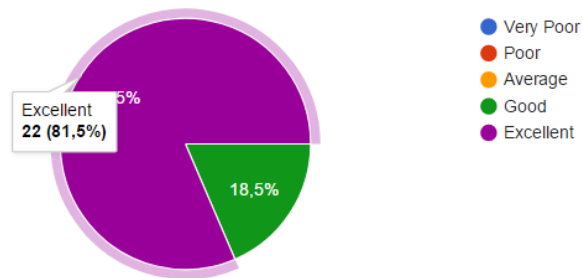
The event was evaluated by the participants that attended the two part, the morning presentations as well as the practical part testing the MOOC. The survey was handed on paper and it was volunteer as well as anonymous.

We collected 27 completed questionnaires

The overall evaluation was very positive and it can be verified on the following graphics from the rated questions:

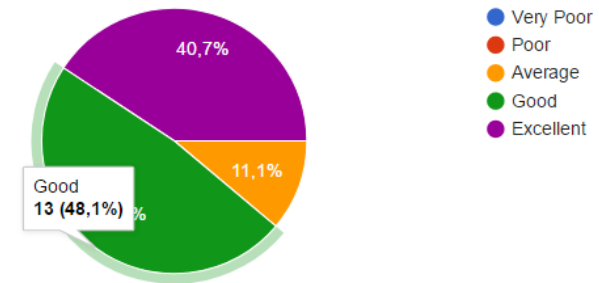
Organization of the Event

27 respostas



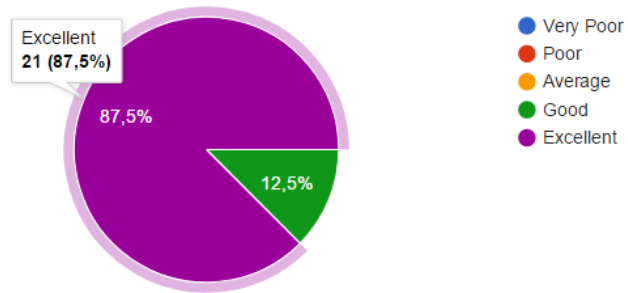
Information provided about the Event

27 respostas



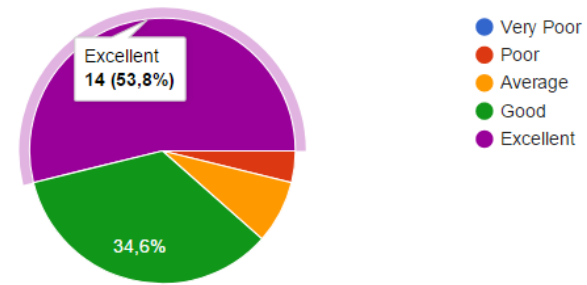
Appropriateness of the selected infrastructures

24 respostas



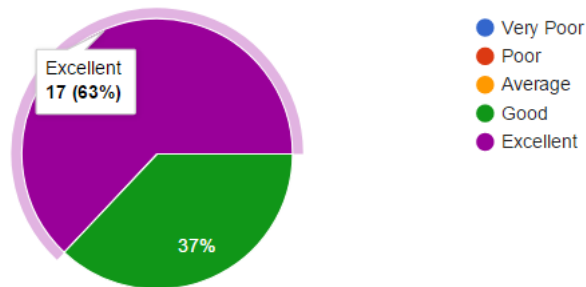
Usefulness of the Informational material/ Kit delivered to participants

26 respostas



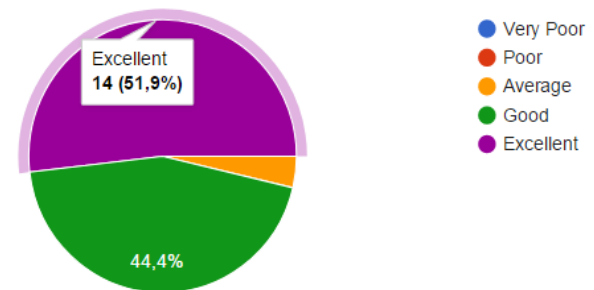
Duration of the Event (Morning and Afternoon Sessions)

27 respostas



Programme of the Event

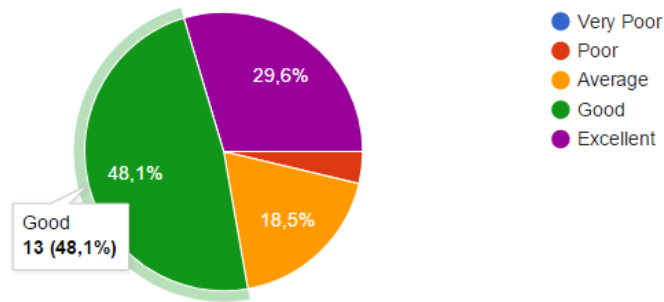
27 respostas



Aspects related to the TOX-OER platform

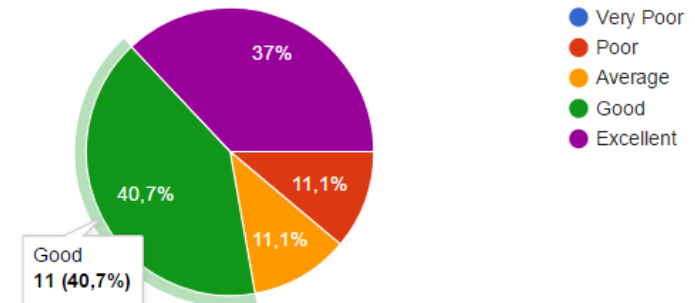
Visual attractiveness

27 respostas



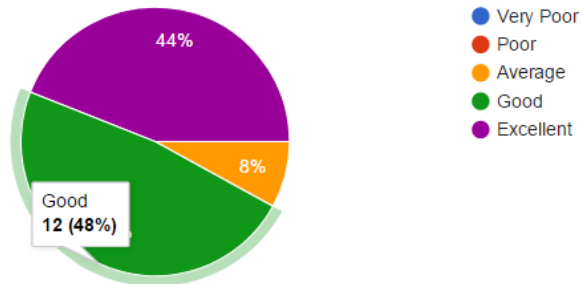
Access (intuitiveness/ easiness)

27 respostas



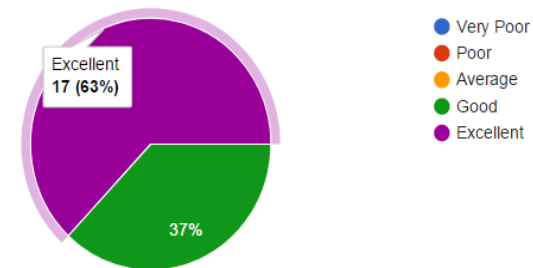
Structure of the different modules

25 respostas



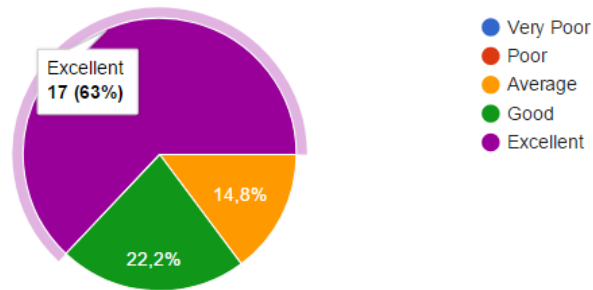
Relevance of the material provided on the platform (usability by students / colleagues)

27 respostas



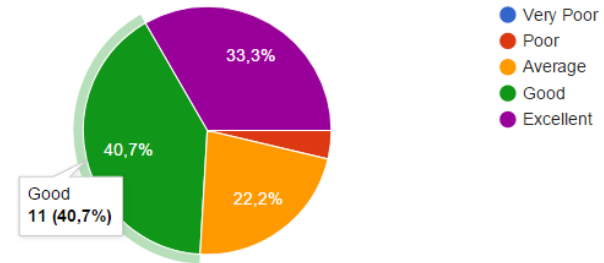
Language of the developed material

27 respostas



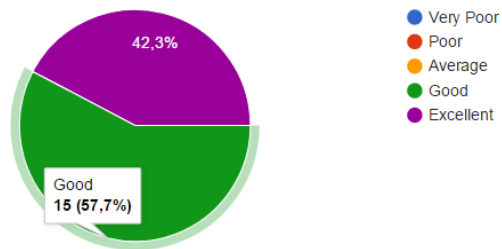
Appropriateness of the course level to the public (people without prior knowledge of Toxicology)

27 respostas



Dissemination Potential of the course/MOOC after this event (susceptible to be used by other professionals/institutions)

26 respostas



Global assessment of the Platform

27 respostas

