

**Mutual Learning Exercise (MLE) on
Research Integrity**
OFIS/HCERES, Paris - May 14, 2019

*MOOC Research integrity in
scientific professions*
University of Bordeaux

Yannick Lung (lung@u-bordeaux.fr)
and Antoine de Daruvar

université
de **BORDEAUX**

Origin, objective and design

→ Origin

- › A local initiative in Bordeaux (to develop a e-course for PhD students) met a demand of French HE and Research institutions (universities, CNRS, INSERM and INRA) and changes in French doctoral studies (new decree published on May 2016 → “Doctoral schools must ensure that doctoral student benefit from training in ethics and research integrity”).

→ Objective

- › To contribute to the development of a culture of research integrity (*Research Culture*) among PhD students and younger researchers
- › The MOOC is not a course (not a learning process), rather a training (thinking about her scientific practices / reflexivity)

→ How it has been designed

- › co-design with learning designers (MAPI, Univ. Bordeaux)
- › co-design with a group of PhD students
- › co-design with CPU and research bodies (CNRS, INSERM, INRA)



Main steps in the development

- **September 2015** - Start of the project (18 months)
- **April 2017 - *Version 1.0***: SPOC Univ. Bordeaux (mandatory training for 1st year PhD students). Feedbacks →
- **February 2018 - *Version 1.1***: SPOC in 3 French universities (Bordeaux, Aix-Marseille, Lorraine, La Réunion) and others HER institutions (12) – Feedbacks →
- **November 2018 - *Version 2: MOOC*** on France Université Numérique (FUN) platform (V1.1 updated, marginal changes with more funny and interactive activities). The MOOC is continuously open (and regularly updated)
- Some universities or research bodies prefer to keep it as a **SPOC** on their own platform



Content

▶ Before you start

▶ Module 1 : Research integrity issues

▶ Module 2 : Scientific misconducts: What is it? Why?

▶ Intermediate Satisfaction Questionnaire

▶ Module 3 : Preventing scientific misconducts

▶ Module 4 : The research integrity regulation

▶ Finally

Module 1 : Research integrity issues

Introduction

Sequence 1 : Research integrity: What is it?

Sequence 2 : Scientific misconducts: Who is concerned?

Sequence 3 : Progressive development of a framework for research integrity

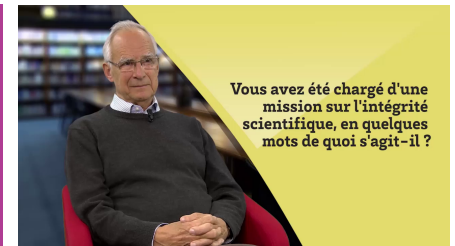
Research integrity and movies

Conclusion and evaluation

Exchanges between a professor and a PhD student: “guiding thread”



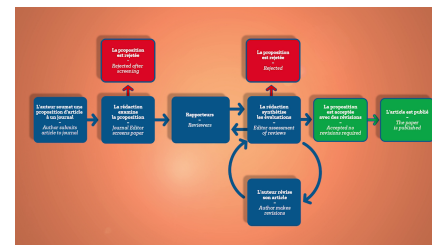
Experts interviews



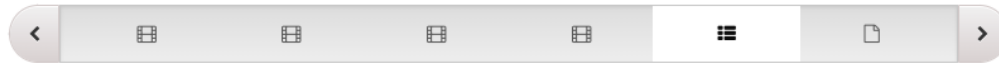
videos “campus”



animations

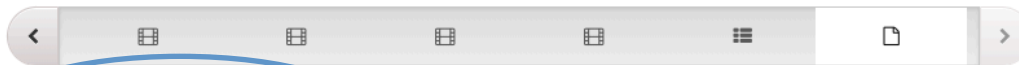


Content (2)



CAN YOU FIND HIS/HER NAME? LEAD THE INVESTIGATION!

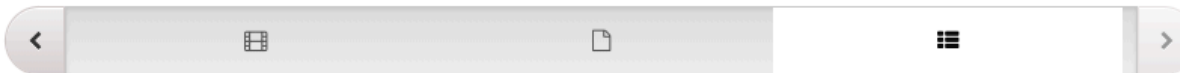
The scientific community has been shaken by various scandals related to scientific misconducts in all disciplines. The most significant cases concerned scientists with high notoriety.



TO GO FURTHER...

Links to documents relating to the framework for research integrity :

- [Singapore Statement on Research Integrity \(2010\)](#).
- [The European Code of Conduct for Research Integrity \(revised edition, 2017\)](#).
- [Guides and Codes of Conduct](#), an updated webpage with links to all guides and codes of conduct all over the world in the website Ethics and Integrity.
- [Charte nationale de déontologie des métiers de la Recherche \(CPU, EPST 2015\)](#).
- [CNRS, CPU Integrity and responsibility in research practices : A guide \(2016\)](#).



INSTRUCTIONS

You have an unlimited number of attempts to answer this quiz. However, in order to have your certificate attesting to this training, **a minimum of 80%** of the correct answers is asked to the quiz of each module.

VALIDATION QUIZ - MODULE 1 (10 points possibles)

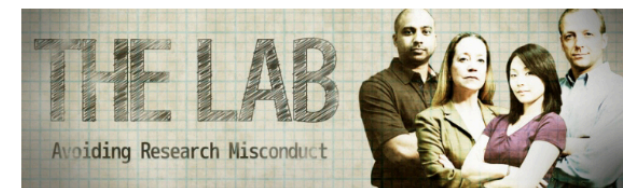
1. What characterizes scientific knowledge according to the philosophy of science ?

About EUR > Vision > Integrity Code > Dil-

Vision

Dilemma game

The Lab



Interactive Movie on Research Misconduct

MOOC version on FUN (started on 7 Nov. 2018)

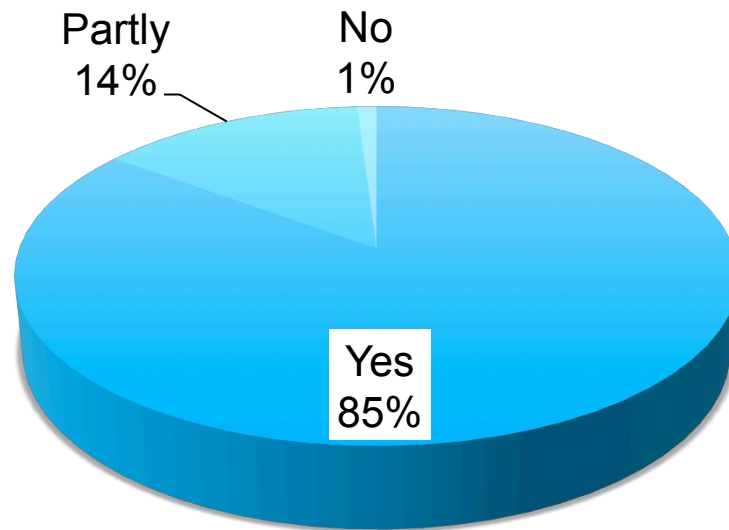
- Registrations : **7,321 registered learners** on 13th May (5,736 for the French version, and 1,585 for the English one)
- Origin of the learners
 - › France (64% for FR version / 49% for EN version)
 - › North Africa (11-14%) and French-speaking countries (West Africa)
- Questionnaire: *Who are you?* (626 answers, bias)
 - › A mixed public of academic learners
 - 69% are PhD students (mainly in French universities)
 - 31% are not (1/3 of them are academics)
 - › Among learners: 48% are “mandatory” registrations. Interest or curiosity still dominate (58%) (Q: *Why did you register for this MOOC?*)
- The MOOC has been successfully validated by 1,907 learners in 2019 (plus about 2,013 as SPOCs in different universities and research bodies since 2017)



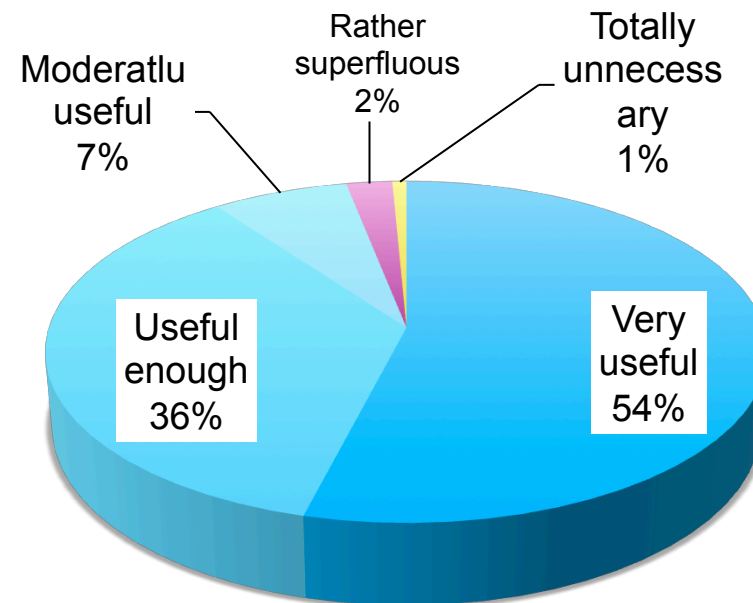
Evaluation and feedbacks

→ A total of 1136 answers to the evaluation questionnaire for the MOOC

Q. At the end of this e-course, do you have any new knowledge?



Q. In general, you will say that this training is?



Impacts of such a training

- The MOOC allows to share a common resources available for PhD students from different universities
- It is a useful tool for raising awareness of all young researchers to research integrity and risks of scientific misconducts
- PhD students appreciate to follow the training at their own pace everywhere they are (in enterprise, abroad, etc.)
- Does this training changes research practices? Difficult to evaluate (too early, multi-factors, etc.)
- Our “not-enough” convictions
 - › **The MOOC is not enough** (interactions are very low): it must be completed by workshops with face-to-face exchanges to discuss more complex situations
 - › **Training is not enough**: it must be integrated in a global policy of a HER institution



Interests and limits of our MOOC for European universities

→ Interests

- › Good enough training (nice comments in the evaluation)
- › A “common good”: available and free. It can be used by anyone all: you need just to register on FUN platform:
<https://www.fun-mooc.fr/courses/course-v1:Ubordeaux+28007EN+session01/about>
- › A modular design: some elements can be reused by anyone



→ Limits of our MOOC

- › Not a true English version: videos are in French subtitled in English
- › Focused on the French institutional context (universities, research bodies)
- › French experts (no international panel)