



D6.2 Report on findings of the pilot evaluation

WP6 Online platform and evaluation

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VIRT2UE Consortium



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History and contributors

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Description of the deliverable

The e-learning MOOC and Q&A software have a general interface. A pilot evaluation will assess the functionality, expectations and needs for the online e-learning platform, specifically with the ERI user in mind.

General introduction

VIRT²UE aims to develop a sustainable train-the-trainer blended learning program enabling contextualized ethics and research integrity (ERI) teaching across Europe, focusing on understanding and upholding the principles and practices of the European Code of Conduct (ECoC). The blended learning program combines online and face-to-face teaching.

Within VIRT²UE, Work Package (WP) 6 is responsible for objective 6: To develop the online training platform and user interface. VIRT²UE's online component will be delivered through the EC funded

platform, The Embassy of Good Science, currently being developed within the EnTIRE project (No. 741782) and launching on June 4th during the 6th 'World Conference for Research Integrity' in HongKong. Furthermore, WP6 provides a continuous evaluation of the online training platform. Since VIRT²UE will deliver a blended learning program, we will also include the face-to-face training in this and future evaluations. In order to do so, we developed a core set of evaluation questions that we can use to evaluate every new version of the face-to-face and the online training. This way we can monitor progress and improvement during the developmental processes and see how the different elements of the blended learning program are valued. For these formative evaluations, a close collaboration is established between WP6 and WP3 (Development of the face-to-face train the trainer program) and WP4 (Development of training materials for online use). WP3 and 4 will implement the feedback from the evaluations in the further development of the training materials.

Pilot evaluation of face-to-face training

Introduction

This section provides a first evaluation of three exercises from the face-to-face component of the blended learning. The face-to-face component of the blended learning is developed by WP3, under supervision of work package leader Bert Molewijk at the University of Oslo. The aim of the face-to-face component of the blended train-the-trainer program is to provide trainers with tools to foster researchers' virtues and promote the ECoC. The face-to-face training will enable ethics and research integrity trainers to train researchers in sessions, aimed at reflecting on moral dilemmas and fostering researchers' virtues. The face-to-face training will be developed in a learner-centered way, utilizing the ideas of constructive alignment (i.e. alignment of learning outcomes, content, methods and assessment of learning), aimed at enabling participants in setting up their own training in the specific countries. The face-to-face training will make use of lectures, literature, group and individual exercises, group and teacher feedback, (self) reflection and observation forms, video feedback, personal learning goals and their development, and portfolios about learning progress. The face-to-face training will be developed in a participatory way. All partners in the consortium will be involved in the process of making the first draft version, by commenting on the draft.

In the present pilot a combination of three exercises was used: 'Rotterdam dilemma game', 'Self-declaration note', and 'Debate and dialogue'. It is important to consider that these exercises were offered as stand-alone exercises, and not yet in the context of a comprehensive training. The pilot was held in Athens on April 3rd and 4th 2019. In collaboration with WP3, WP6 performed a first evaluation.

Methods

16 participants were enrolled in the pilot of the face-to-face training exercises in Athens. Participants were selected consortium members from VIRT²UE and EnTIRE, as well as a few related ERI experts.

A core set of questions was developed to use in this and all future evaluations of the face-to-face and the online part of the blended learning. The core set of questions addressed the content from the training from a trainee perspective. Further, from a trainer perspective it was evaluated whether participants feel confident to use the training as trainers themselves, and how they would change the

training to be able to use the training as a (future) trainer. Both these perspectives are important, since the primary aim of VIRT²UE is to develop a train-the-trainer program. Hence, many trainees will become trainers in the future. In addition to the core questions, additional questions specific for this pilot of the face-to-face training were used. These questions assessed how the current combination of exercises was valued and how the organization of the training was evaluated.

The questions were sent as a survey through Qualtrics. Qualtrics is an online survey program that offers a safe and simple environment to create and distribute surveys. Qualtrics was freely accessible through the account of Fenneke Blom of VU University, Amsterdam.

Results

14 out of 16 participants completed the evaluation survey.

Trainee perspective: Evaluation of the content of the training

Overall the training was evaluated with a mean score of 8,1 (SD 1,0) out of 10. Most participants reported that the training helped them to learn about, and reflect upon, ethics, and research integrity virtues, as well as elements of the 'European Code of Conduct for Research Integrity' (ECOC) (Figure 1).

Figure 1



Elements that participants missed in the training were:

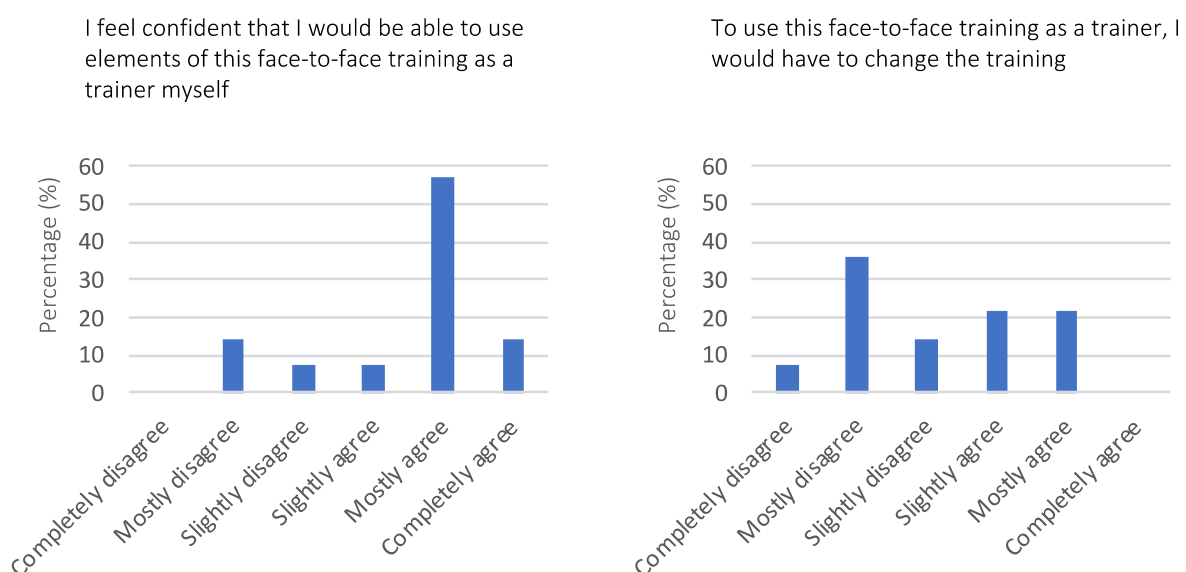
- *The theoretical foundation (i.e. virtue ethics) and the link between this foundation and research practice was at times somewhat fuzzy. More thorough prior theoretical input would have been helpful so as to provide a more solid common base for discussions.*
- *The ECOC's virtues could have been placed more clearly and explicitly into the center of discussions. While they certainly mostly played a central role, spelling put their practical implications even more explicitly could have been helpful to establish links between ethical theory and actual research practice.*
- *Research Integrity virtues were not explicitly addressed (maybe this is for the online part?)*

- Recognition of the ambiguous imperatives and respective conflicting roles that researchers are faced with
- Implications of virtue-ethics approach for individual researcher
- The participants were all experts. In the future trainings, trainees need more material to get equipped, e.g. information on virtues, values, norms. The level was high, self-evidently. In the future we will also have to learn to gain experience in middle/lower level trainings.
- I do not feel there are specific elements missing, but there were some problems with clarity of instructions, content of exercises etc. I am sure these problems will be solved in the follow-up time.
- Clear description of the concepts the training draws upon
- An introduction to the general issue for each topic treated
- Practical methodology and procedures.
- More time for each exercise

Trainer perspective: Use the training as a trainer

Most participants felt confident that they would be able to use elements of the training as a trainer themselves. However, 21,4% did not feel confident. Participants differed in opinions as to whether they would have to change the training before they would be able to use it as a trainer (Figure 2).

Figure 2



Participants that did not feel confident that they would be able to use elements of the training as a trainer themselves remarked:

- I just don't feel ready to jump in the trainer shoes
- Not having a background in philosophy or humanities in general make some exercises hard to understand.
- The training session was very helpful to experience the training and to discuss the exercises.

Participants that did feel confident that they would be able to use elements of the training as a trainer themselves remarked:

- I'm confident that I'd be able to use the dilemma game and debate/dialogue as well as most parts of moral inquiry into the middle in my teaching. However, I'd need more theoretical background to

confidently use the self-declaration approach and the virtues, values and norms exercise. Lacking theoretical excess knowledge, I would not feel confident using approaches that rely on extensive theoretical knowledge as I wouldn't feel well-prepared to answer trainees' questions in sufficient depth and clarity. Thus, I'm quite sure that I'd be able to use some elements of the trainings. Yet I'd also like to emphasize that I certainly don't feel confident using all elements. For that reason, I chose the 'mostly agree' option.

- *Instructions for each exercise and guidance from the trainers was adequate enough and it is mostly up to each trainee to improve specific skills and act as a trainer.*
- *Clear and easy elements.*
- *This is something that remains to be seen. I feel that I acquired the necessary theoretical background during the training, but I will definitely need further practice as a trainer, like a mock training/rehearsal, in order to feel confident to train others.*
- *Ideally, I will gain more experience in all elements in a try out setting, as a trainer, before using them myself in a training setting.*
- *I think that I would need more training and also some experience in the role of the trainer (as I have been trainee so far).*
- *I think I can do this, because I know most elements from MCD and teaching practice; it is not clear whether someone without this experience can do this.*
- *I don't feel like I have the necessary experience as a trainer to facilitate such complex learning activities. Also, there are some uncertainties about the concepts the training draws upon.*
- *At present I need to have more practical experience but I'm confident that it will be possible after more training to use this face-to-face training*

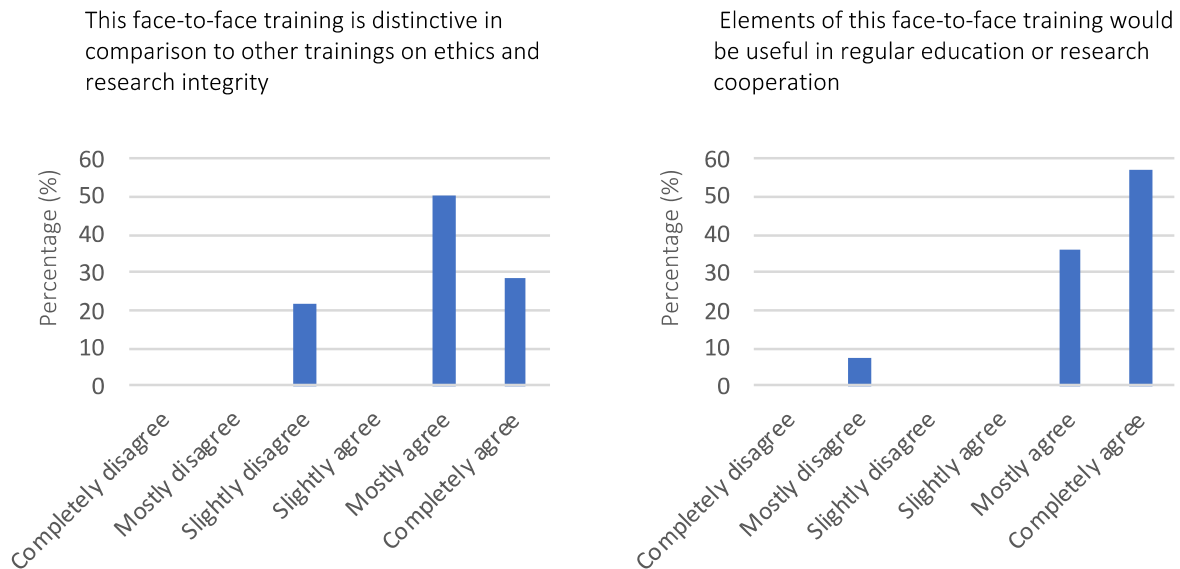
Participants that felt they would have to change the training before they could use it as a trainer themselves, remarked:

- *It depends from the target audience. If the audience is not experienced trainers, I might add some information about research integrity and research ethics, values, virtues and norms.*
- *As previously described, a brief general introduction before each topic*
- *Add theoretical information (online element). Depending on the trainees' backgrounds, decrease the difficulty of the self-declaration approach and the virtues, values, norms exercise. In other words, I consider the face-to-face training without a prior online component too demanding people not having already substantial research integrity / research ethics expertise*
- *I could not use real cases because of the double function the institution I work at has.*
- *Probably the order of performing some exercises. Put the longer more narrative exercises in the beginning.*
- *I would probably be more decisive about the instructions and leadership of the exercises. Sometimes it felt as if there was no sufficient guidance.*
- *I would change some things for making the exercise easier*
- *Make things more simple, more structure, better instructions*
- *Let the trainees experience more often what it is to be a trainer.*
- *I would have to prepare materials in advance*

Evaluation of the structure of the training

Most participants felt that the face-to-face training is distinctive in comparison to other trainings on ethics and research integrity and that elements of the training would be useful in regular education and research cooperation (Figure 3).

Figure 3



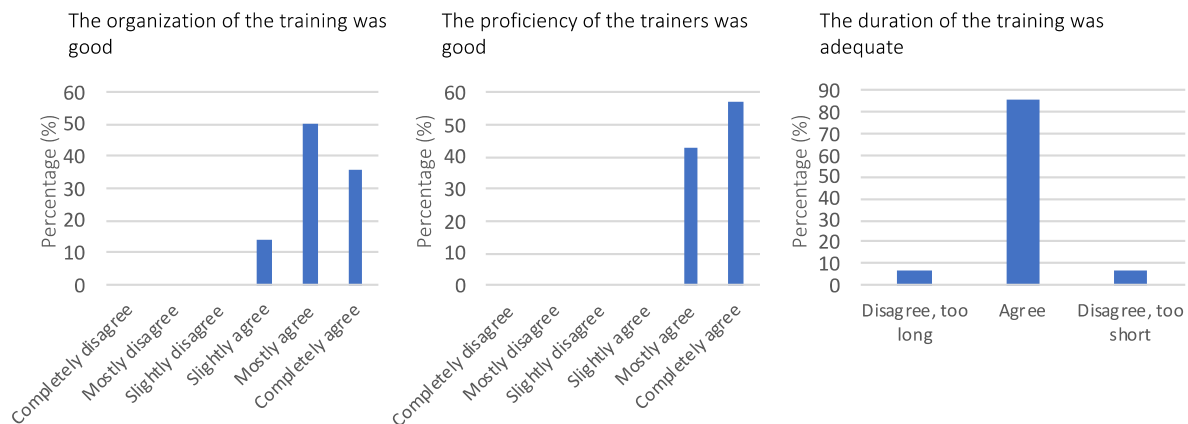
How did you like the current combination of exercises in the face-to-face training?

- *It provided a wide coverage of different approaches; it would be great if everything can be described in a schematic way (especially the guidelines for the modules)*
- *In general, I like the combination of exercises as debate/dialogue and the dilemma game are relatively easy to facilitate while the self-declaration approach and the virtues, values, norms exercise are theoretically much more demanding (with the moral inquiry into the middle literally taking a middle position). However, as emphasized before, the more theoretically demanding exercises require more extensive preparation.*
- *Most of the exercises were interactive (trainees were actively involved) and targeted to real research integrity dilemmas.*
- *I liked the combination of exercises, but it is mostly suitable for experienced trainers.*
- *I enjoyed participating in the exercises but probably would change the order of performing some exercises, i.e. I would put the longer and less interactive exercises at the beginning combined with more interactive ones.*
- *They are ok, but they still need some improvements.*
- *Nice set of exercises.*
- *Very much indeed.*
- *Very much, especially the variety between exercises and subgroups-plenary.*
- *It was satisfactory because there was variety of exercises.*
- *Yes*
- *Very good combination with particular attention to personal experiences.*

General evaluation

Participants reported that they thought the organization and the proficiency of the trainers was good. Moreover, the duration of the training was evaluated as adequate, by most participants (Figure 4).

Figure 4



Final remarks of participants:

- *I very much enjoyed the training and the trainers did a great job. I would only suggest that some exercises may be a little further elaborated or explained as I had some troubles in understanding some of them before starting the exercises. This will also help us as future trainers to see how we should explain the exercise.*
- *Great days: constructive and creative; the exercises were quite open, more experimental and brainstorming than instructions; this was nice, but for the 'real' training, more structure and instruction will be needed.*
- *As it has already been mentioned during the training, we will need to further familiarize ourselves with the exercises' instructions.*
- *Let the trainees become the trainers.*
- *Great training! Thanks very much for the organization.*

Conclusion and next steps

The first pilot of exercises of the face-to-face training was evaluated well. The content as well as the structure of the training were valued by most participants. Participants differed in their report as to if they felt confident to use the current training as a (future) trainer themselves, and if they would need to change the training in order to do so. These findings are fitting with the current development stage of the face-to-face training. The present pilot included three separate exercises and was not yet a fully comprehensive training.

In the next month's WP3 will adapt the exercises and further develop the training around the exercises into a comprehensive training implementing feedback from this evaluation. The next version of the training will be offered to all VIRT²UE consortium partners. This training session will take place in Amsterdam, on the 3rd and 4th of September 2019. WP6 will again organize a general evaluation at this occasion.

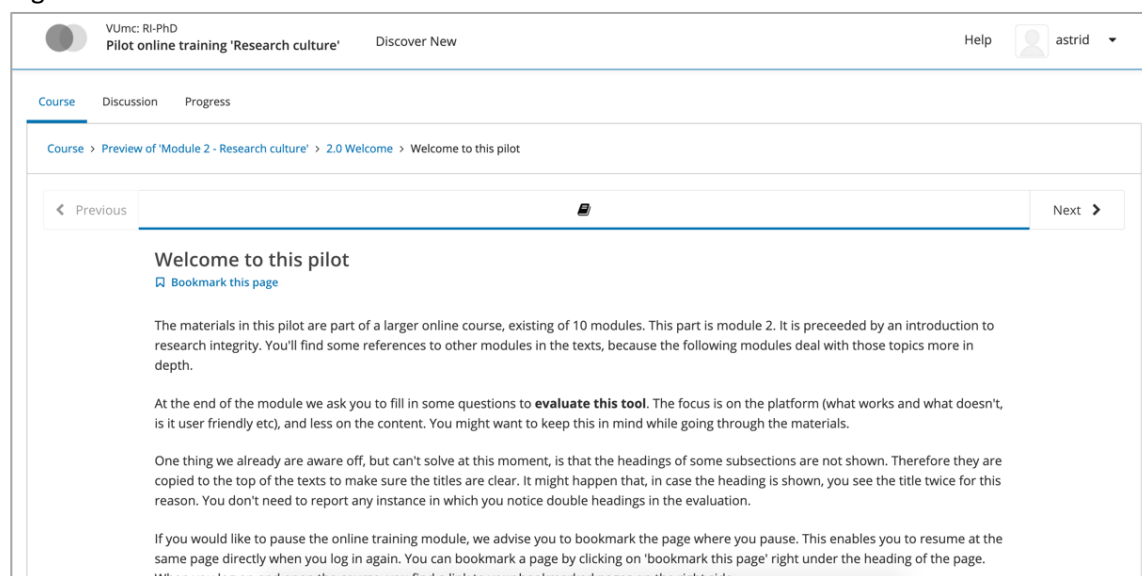
Pilot evaluation of the online platform

Introduction

VIRT²UE's online component will be delivered through the EC funded platform, The Embassy of Good Science, currently being developed within the EnTIRE project (No. 741782) and launching on June 4th during the 6th 'World Conference for Research Integrity' in HongKong. At the moment design studio Momkai is designing the platform, which will be hosted at embassy.science. The online training module will use Open EDX and will be referred to on The Embassy. The actual integration of the training module will be performed later.

This pilot of the online training was also hosted on the Open EDX Massive Open Online Course (MOOC). The consortium can already create courses to test functionalities. When created and made available, participation is possible via virt2uepilot.eu (Figure 5). For the present pilot evaluation, we hosted one part of the future online training on virt2uepilot.eu. The future online training will consist of multiple of these modules. This specific pilot module was on "Research Culture". In this module we included all functionalities that we aim to use to present the online training material in the future. These functionalities include articles, external links, embedded video's, and assignments.

Figure 5



Methods

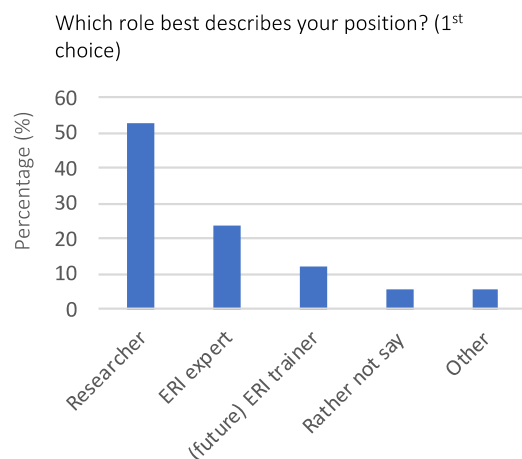
Invited participants were consortium members from VIRT²UE and EnTIRE, as well as ERI experts and researchers connected to the consortia.

For the evaluation we used the core set of evaluation questions as described in the chapter "[Pilot evaluation of face-to-face training > Methods](#)". In addition, we added questions specific for this pilot of the online learning platform. These questions assessed how the functionalities were valued, if the platform was deemed easy to use, and whether the design of the platform was attractive. The questions were sent as a survey through Qualtrics, more information can be found [here](#).

Results

18 participants filled in the evaluation questionnaire, of which 17 completed the survey. Most participants were researchers, other participants were ethics and research integrity experts, or (future) trainers of ethics integrity (Figure 6). One participant was a research assistant, and one participant decided not to share his/her role. Three researchers were also ethics and research integrity experts, and three researchers and ethics and research integrity experts were also a (future) trainer in ethics and integrity.

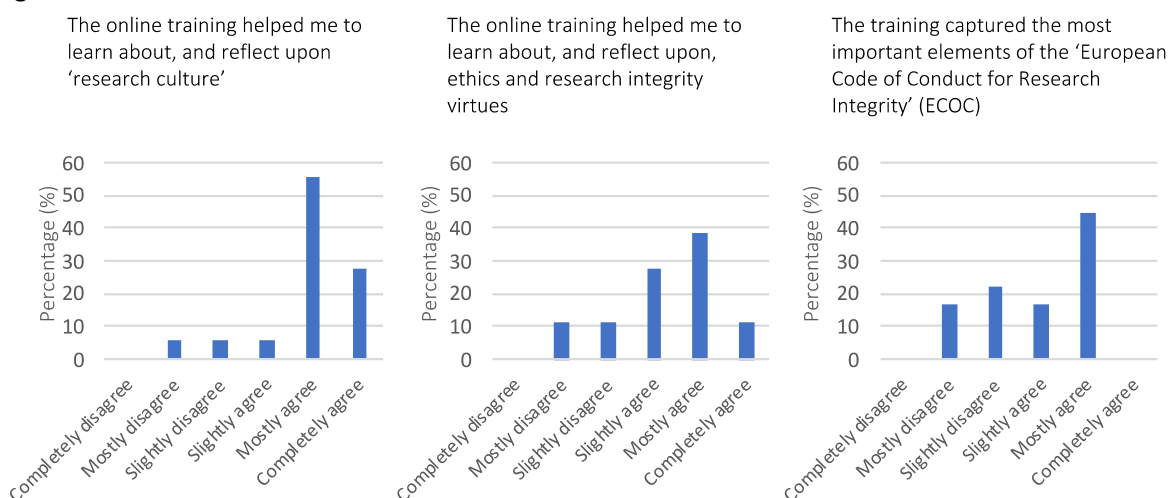
Figure 6



Trainee perspective: Evaluation of the content of the training

Overall the training was evaluated with a mean score of 6,7 (SD 1,2) out of 10. Most participants reported that the training helped them to learn about, and reflect upon, research culture. Participants differed in their assessment whether the training helped them to learn about, and reflect upon, ethics, and research integrity virtues, as well as elements of the 'European Code of Conduct for Research Integrity' (ECOC) (Figure 7).

Figure 7



Elements that participants missed in the training were:

- *In my view, a clearer definition of the concept of research culture would be helpful.*
- *From my point of view, the presentation of the content did not make the virtue ethic perspective on good scientific practice explicit. This is somewhat problematic if virtue ethics are meant to serve as a theoretical base. If the course is agnostic with regard to the theoretical approach used, this is not a problem, however. Having a section on prevailing paradigms (in the Kuhnian sense) and research programs (in the Lakatosian sense) would have been interesting as it can tell quite a bit about prevalent research cultures (the extent to which this focus adds valuable insights might be discipline-specific, though).*
- *Heavy focus on natural science, little regard that fraud and unethical behavior might differ in other disciplines. Reflecting on own practice.*
- *Ethics and virtues, ECoC*
- *I don't know what de ECoC is.*
- *This training module was clearly not on the ECoC, so that's why I didn't believe that it captured elements of the ECoC. This might be different for the future extended, comprehensive training.*
- *1) General introduction; what topics will be covered specifically, how and towards what goal? The sources that were mandatory were sometimes too long/extensive. 2) Ask questions about a source right after downloading/clicking on the source. This helps guide the reading and helps to check whether the source has actually been read. 3) Asking all of the questions at the end of the module is counterproductive. 4) Compare it to the "BROK herregistratie"; many interactive questions and you can only go on when all sources have been downloaded/read/watched. 5) Include a (more specific) indicator to see how much of the module has been completed. 6) The Stapel case is introduced as a lead in the module but is hardly mentioned until the last chapter (2.6). In my experience, the whole could be more integrated.*
- *Perhaps a few more 'lively' examples for the 'dry' parts about mentoring. I.e. good vs. bad examples or something of a sort. I do feel it's good that the knowledge is tested, and questions are asked to make you think about your take home message. The peer-review process in itself seems like an excellent idea, but perhaps more than one peer or a discussion module of some sort? It also made me wonder if you were actually reviewing a peers' answers or if you were presented with a fake answer to make you think about certain aspects. Either can work, but if it's an actual peers' answer, I would expect my answers to be reviewed likewise as well somewhere.
During my live course on research integrity I noticed it was mostly the (structured) discussions on cases that made me think about different aspects the most. Hence my suggestion for a discussion module of some sort. It presents you with point of views on matters you may otherwise never have considered.*
- *I would like some further input by journal editors/reviewers regarding publication culture and by policy makers.*
- *The current content is rich and interesting.*
- *A lot of reading, perhaps this could be made more interactive. Personally, I always like an approximation of the amount of time a module takes. The way you click through the modules could be more structured; only at the end did I have an overview of all the modules I completed and how they connected together.*
- *I'm not sure if I 'miss' certain topics, but since the training is mainly composed of various links to external resources, I find it a bit hard to find a red thread throughout the training. Some links lead to options for more links, which might on one hand be great for further reading, but on the other hand it makes it hard to select what to focus on, also, because one does not know what else will*

still be covered in the module anyway and what not. Thus, my feedback would be a bit in the direction of 'less is more'.

Some of the provided information is also a bit abstract and theoretical and thus came across for me as a bit too detached for scientists to find themselves in the depicted topics or situations.

- More diverse content (videos, assignments, maybe quizzes). A lot of it was just "read this here". It gets a bit repetitive after a while. Link at 2.5.2 Functions of mentoring did not work.
- Regarding elements, in my view, the possibilities offered by graded discussion forums is not used. In my online teaching experience, the online discussions where participants have particular questions to discuss is one of the most interesting interactive online teaching forms. It builds a learner community, allows to exchange views etc. The current format is bit lonely. To motivate trainees the forums should be graded and there should be a clear grading rubric.
- Plusses:
 - Online and accessible environment
 - Variation of media (text, articles, videos etc.)
 - Bookmarks come in handy

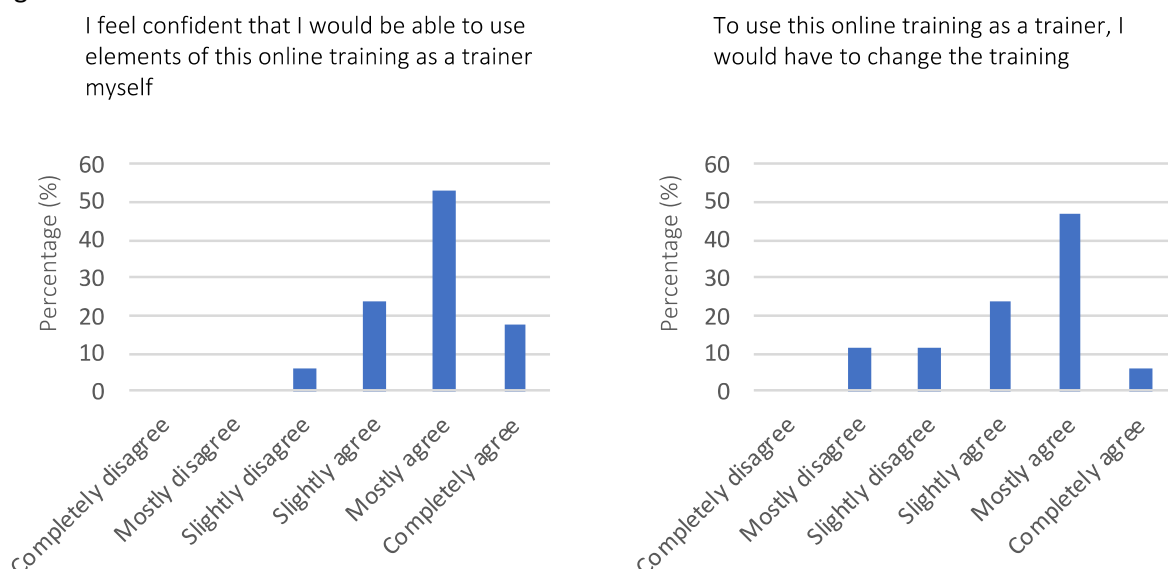
Room for improvement:

- Overview of texts was unclear (e.g. difference between theory and input of peers)
- First movie: sound quality low
- Section 2.5.2 Functions of mentoring: link does not work
- Section 2.5.3.3 What can you do?: link does not work
- Quiz: error in submitting answers

Trainer perspective: Use the training as a trainer

Most participants felt confident that they would be able to use elements of the training as a trainer themselves. Also, most participants felt that in order to use the training as a trainer, they would have to change the training (Figure 8).

Figure 8



Participants that did not feel confident that they would be able to use elements of the training as a trainer themselves did not leave remarks.

Participants that did feel confident that they would be able to use elements of the training as a trainer themselves remarked:

- *Interesting resources, I would probably use them in a bit different way. However, there is a strong focus on the Netherlands, a European picture would be more appropriate; but I understood to see this material more as an example, right? In principle I expected more interactive exercises, there was a lot of reading (or listening) only - and then those contents were not used for exercises. Online training could/should be used in a different way than only reading papers on a screen, I guess.*
- *The training provides a lot of clear information that's highly usable. For example, I fully intend to have future interns read some aspects of the provided external links, on research integrity, but also their role and examples. In particular if they appear interested in work after their internship in research.*
- *Many of the materials/readings/videos are helpful and can - with slight adaptations - be used in many different contexts. Thus, I'm confident that I could extract elements that are useful for my teaching.*
- *The material covers a lot of issues regarding research culture and ethics research integrity and could be easily cited and forwarded to future trainees.*
- *I think most of the materials provided are very helpful.*
- *I might use several sources but would probably not use the module in the current form.*
- *I would certainly use some elements of the training*
- *I would also be nice to receive tips on how to teach, i.e., suggestions for teaching strategies, the use of materials, assignments, etc.*
- *I particularly enjoyed the video of Brian Nosek's talk and the content of that.*
- *I have a huge experience in online training, so I do not see problems to use this platform and training elements.*

Participants that felt they would have to change the training before they could use it as a trainer themselves, remarked:

- *I would prefer fewer articles and theoretical reading, e.g. the one from Columbia University, and some more practical examples, e.g. first a 'theory/info' part on a topic and then one or more example cases so that the scientists finds himself/herself in a hypothetical situation and would have to take a decision related to the just addressed RI topic.
I am also not quite sure if I would put such a strong focus on mental health. I agree that this is important, but I feel this is covered in other workshops and courses at our institute, and I would not feel comfortable mixing that too much with my area of research integrity.*
- *If you would use this training to train others in your specific field, perhaps you might want to adapt the training by including elements that are especially relevant for that field.*
- *1) The start with the video of Brian Nosek is not very helpful in my view. First, he very much emphasizes cognitive biases which in itself is not bad but sets a somewhat too individualizing tone. Second, the video provides solutions before the course has dealt with understanding the problems. Third, (this is a very personal thing, probably) I do not like the attitude transpiring which reminds me too much of consultants. 2) As I am working in an environment where a lot of ethnographic, in-depth, qualitative single-case studies are done, I would try to address specific issues of this*

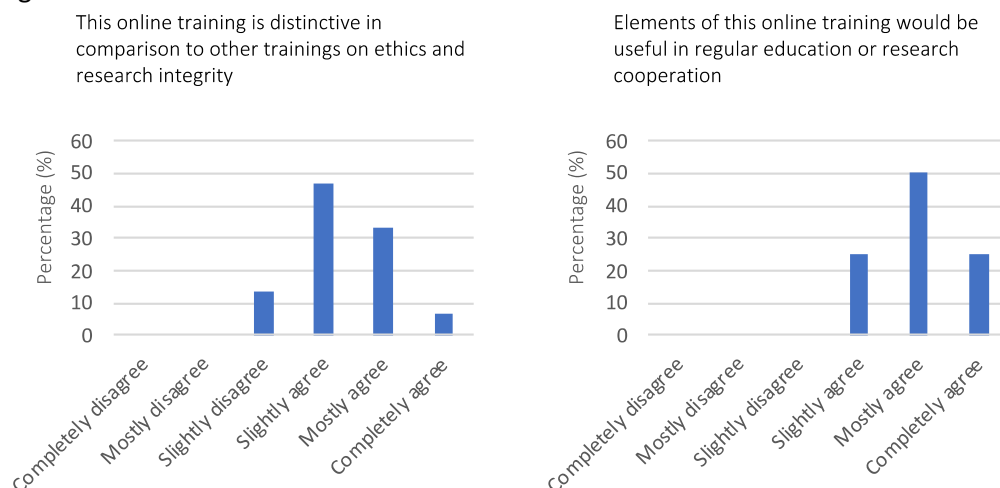
research, e.g. how can we share data without compromising anonymity granted to participants etc.

- As written before, it needs a European focus. It has to be much more interactive and it needs more options for trainees to reflect e.g. what they read.
- As I teach in non-medical disciplines, I would have to adapt the materials focused on medical disciplines in order to facilitate deep learning drawing on extant knowledge of my trainees. Moreover, I'd add some examples from my country of teaching which is not The Netherlands in order to use cases that my trainees are more likely to know well.
- I would certainly add the aim and objectives of the module to give the trainees an overview of it. In my view, it is very important to trainees to know what is our common aim to achieve or why we are doing this?
- As there is a lot of information included in the module, I would probably suggest separate training over subsections included and maybe added some more material. I think it is too much to do the training on the module at once.
- Individualizing the training according to the audience (disciplinary backgrounds, where they are at in their academic career etc.). Include more interactive elements
- I would use less text and more interactive elements, also more graphics that may illustrate what the text covers. This may also be because I have difficulties processing a lot of text online in contrast to printed documents. I guess I am used to skim reading online.
- I would make this much more interactive, I would provide summaries, or in-between quizzes. I would provide learning goals/objectives at the start of course (at the end of this course, the student will...), I would add dilemma's to think about (What would you do?).
- More interactive. Structure could be clearer.
- I would add more (audio-)visual elements.
- I am currently not a trainer.

Evaluation of the structure of the training

Most participants felt that the face-to-face training is distinctive in comparison to other trainings on ethics and research integrity and that elements of the training would be useful in regular education and research cooperation (Figure 9).

Figure 9



How did you like the current combination of functionalities, i.e. text, video's, interviews, and assignments, in the online training?

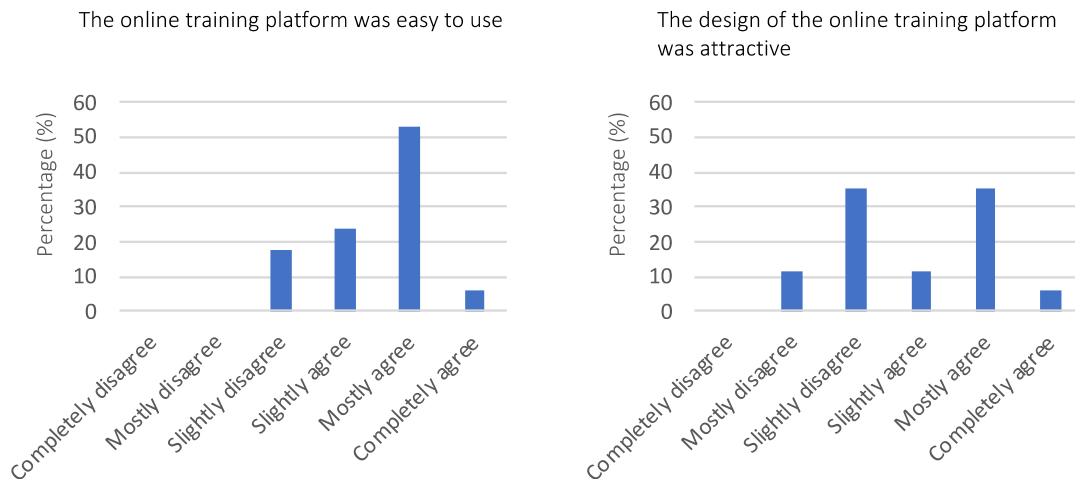
- *As mentioned above, text is too dominant (at least for me). Nonetheless, it shows, that a lot of thought has been put into the selection of the topics and resources. Also, I would have enjoyed more assignments in between, maybe even elaborate on some topics via assignments/interactive exercises.*
- *The combination was good. Texts were of appropriate length. Still a lot of text. I would encourage to use more videos. For instance, the interview of Tamarinde would have been a great video. Assignments were useful as to make you think on the topics. However, some of the assignments I found confusing ("Assess peers"), didn't really get what was asked of me.*
- *Too less assignments, almost no exercises; too much reading and listening (videos mostly too long!). No sure about the exercises with ranking/commenting answers of other trainees - what is the benefit of this?*
- *By and large the combination seems reasonable. Adding some elements that require collaboration among participants (e.g. pro/con discussions, Q&A sections) could perhaps be useful in order to increase the degree of interaction (which, however, presupposes that a significant number of trainees are trained more or less simultaneously).*
- *A lot of information, maybe a summary can be placed at the end of a chapter. The variety between content is pleasant but would be nice if it could be integrated in the training environment.*
- *I liked it, good balance between the different mediums to give information*
- *In principle, I like the combination, but would probably emphasize individual or group reflection parts a bit more.*
- *I like the combination, but it needs to be tweaked. I.e. cut the video's so that you only get to see the parts you need to see. Ditto for the texts. Introduce the assignments right after the source, not at the end of the module, etc.*
- *I think it worked well together; maybe the training could use more room for interim reflection.*
- *It is still a bit 'boring'. I would add more interaction to stimulate engagement. I was a lot of reading.*
- *In general, I liked it a lot, but e.g. one of the links did not work (probably the site was moved), which is obviously a tricky problem if a training is constantly referring to external websites, and it also made it feel a bit inconsistent for me. I would prefer to have that content directly embedded in the course. Some of the readings were too long.*
- *It was not clear how the quiz is working (especially the "Drag and drop the items" section). Practically I would be worried about external links included in materials. It is quite risky, because links might become broken. It means that someone should regularly check the links. How will it be ensured?*
- *In general, I liked it. This combination keeps the interest of the trainee alive. However, it is not clear to me the training purpose of the "Assess your peers" section, I would need further clarification on that.*
- *The first question: Yes, this course is more comprehensive than the one other course I followed, and I still feel the elements are properly covered. So that's a good thing. To the second question, I fully intend to use elements from this course (the external links are all saved) when in the future I have to supervise interns (or hopefully some distant future, PhD students). I think it's very good to realize that no matter where on the ladder you are, you have a role, responsibility and you can influence the process in general.*

- *Very much!*

User experience

Most participants felt that the online training platform was easy to use. However, 17,6% did not believe that the platform was easy to use. Opinions differed concerning the attractiveness of the platform. 53,0 % believed the design of the platform was attractive; 47,1% did not believe the design of the platform was attractive. (Figure 10).

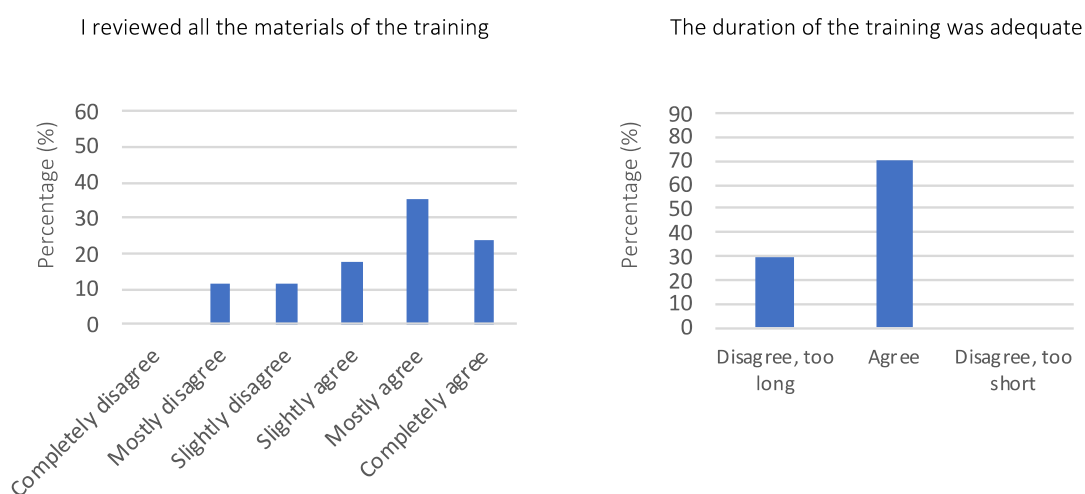
Figure 10



General evaluation

Mean duration of the training was 97,3 minutes (SD 72,0). The duration differed between participants from 30 to 300 minutes. Participants differed in whether they reviewed all the materials of the training. The duration of the training was evaluated as adequate by most participants. 29,4% of the participants felt the training was too long (Figure 11). These participants differed to what degree they had reviewed all the materials of the training and how many minutes it took them to complete the training (30, 60, two times 180, and 300 minutes).

Figure 11



Final remarks of participants:

- *A well-designed training on a very important topic! (note for evaluation: I mainly focused on platform functionality, not content)*
- *I personally preferred the videos of the audios, videos worked well for me to focus on the topic; audio was a bit strange because you should listen, but at the same time look at something at the screen and the thoughts start wandering off in case of e.g. a 20 min audio interview. Overall, I found the provided links and resources interesting.*

Comment on the duration: I guess it took me 1.5 hours; some material I did not read very carefully I have to admit, because I didn't know how many more articles and papers I will have to read, so I felt I would not like to spend too much time on some of those long articles. Also, some things just were too detailed. If I only want/should spend 1.5 h on such a training, I should learn really useful things, instead of having to actively decide to skim over and skip some very detailed explanations of specific cases or personal stories. This made my overall reading of those articles somewhat sloppy because I felt there was too much information.

Already only quickly reading some of the articles, I felt I was getting a bit lost in all of that info and found it hard to extract the core topics and especially take-home messages. For learning how to responsibly reflect on research integrity in one's own research, the content could contain more sections that help to think and reflect and relate to your own research. Also, the module used one big case for showcasing several RI aspects. Maybe listing a few big cases might be more helpful for scientists for finding a case that they can relate to. Natural scientists might find it harder to find their own RI problems in science reflected in the mentioned case.
- *The current design is clean, but a bit boring. Good that there are many links to external resources, I like that better than copy pasting all the texts in the course. Not all URLs worked however (to the Stapel investigations). Would be nice to see you progress when you're in the training.*
- *There was an error with processing my answers to the quiz. Reloading of the page did not work. The question: 'Do you agree that this was surprising, or do you understand from the given explanation why this was found to be surprising? Or in case of a suggestion for a topic to add: do you think this is a relevant topic to add?' has a lot of question in one question.*
- *I liked how it was specifically tailored to the VUmc, it distinguishes it from the regular PhD RI course. It would be nice to know in advance how long the modules are going to take.*
- *Some specific remarks: 2.1.1 The video is very long. The first few minutes (about the different shades of grey) can be left out. Also please cut the video so that you only get to see the mandatory parts. 2.1.1.1 Please give a short introduction of the clip. 2.2.1. Do you get to choose whether to read the summary or listen to the talk show or do you need to do both? For the summary, please cut the manuscript so that only the 3 mandatory pages are shown.*
- *The duration of the training is fine if you do not have to do everything at once (as I did now), otherwise you lose concentration. Maybe it also needs more focus on the individual topics. It is a good start, but as an online course it needs more activities for trainees and should not be a reading/listening exercise only.*
- *My time spent on the course might be a little shorter in duration. I didn't read all of the materials linked because I was familiar with some of them already (I wrote this in the "How many minutes did it take you to complete (the above indicated part of) the training?" question, but that allows numbers only)*
- *The number of minutes is a very rough estimate - I had to interrupt my doing the course several times and in all honesty - I have no idea how long in total I spend on this.*

- 2.1.2.1: link to report does not work. 2.5.2.1 link to foundation text does not work. 2.5.3.3 link to foundation text does not work. 2.6.1.1 link does not work
- technical problems
 - Video of Brian Nosek: I was informed that I could start in min. 8. But when I dragged the cursor to min. 8, the video was hung up (constant repetition of short fragment) --> I had to reload the page and then it worked
 - 2.5.2.1 foundation text of the online module by CCNMTL is no longer available
 - 2.5.3.3 paragraphs of the same text should be accessed --> no longer available
 - 2.6.1.1 Report on the Stapel case --> no longer available
 - quiz at the end: in many instances when I tried to submit my responses, I received the following answer: We're sorry, there was an error with processing your request. Please try reloading your page and trying again.
- Yes,
 - I would not refer to Wikipedia as a source
 - There were a lot of long sentences in the texts, I would suggest shortening.
 - Many long quotes... I would suggest to provide highlights/ a summary instead, or as an addition
 - I would start the course with goals/learning objectives, and I would ask the participant to fill in personal learning goals as well
 - I would introduce the assignments better, as well as the discussion assignment.
 - I would provide summaries throughout, or include in-between quizzes / interaction
 - I would try to think of other ways to stimulate engagement, e.g., by providing participants with dilemmas for which they have to come up with arguments for and against a certain solution/option/choice. Or maybe to include a game, or asking them to look things up on the internet, etc.
 - with regard to the quiz at the end: why so many different question/answering formats? It was a bit confusing to me.
- 1) There were some typos in the texts. 2) Quiz section: I could not submit my answers as 'there was an error processing my request'. 3) Some links were not working. 4) "Assess your peers" section: in order to submit my answers I had to fill in all the fields where comments were asked, even when I did not have any comment to add, so I had to write "No comment" in order to enable the "submit" button.

Conclusion and next steps

The first pilot of the online training platform gave varying results. From the trainee perspective participants reported that the training helped them to learn about 'research culture', but less so about ethics and research integrity or the ECoC. This fits with that the current evaluation only included one online module on 'research' culture. In the future the online training will be extended to cover other topics within the ethics and research integrity field.

Most participants felt that elements of the online training would be usable for them as a trainer, and that they would like to change the training before they would be able to do so. It is encouraging that in its present form elements from this module were already considered usable. We aim to develop an

online training that consists of building blocks that are easily modified, enabling trainers to adapt the training to the local needs and situation.

Concerning the structure and the design of the platform it was evaluated that there is room for improvement. More interactive features, e.g. exercises, and the use of media to offer information would be preferred by most participants. Also, the user-friendliness and the attractiveness of the platform need some work.

In the next month's WP6 and WP4 (content of the online training) will discuss the feedback within the project group and take steps both on the structure of the platform and on the content. We strive to evaluate the next version of the online training at the end of September 2019

General conclusion

This pilot evaluation is the first iteration in the development and continuous evaluation of both the face-to-face and the online part of the blended train-the-trainer program. This evaluation has indicated points that are already well on track, as well as aspects that need work. In the next months both the face-to-face training, as well as the content for the online training, and the online training platform will be developed further. WP6 will perform evaluations on all future pilots of (parts) of the training. By using the core set of questions that were developed for this deliverable we can assess progress and improvement during the developmental process.

The next pilot of the face-to-face training will take place September 2019. The next pilot of the online part of the training will follow in sept 2019. Following fall 2019, all members of the VIRT²UE consortium will organize trainings in their own country or region. Each member will train ten trainers in their respective countries. These newly trained trainers will, at the end of the project, be equipped to organize trainings for researchers. In this way, VIRT²UE reaches the target of 3050 trainers in Europe by the end of the project.