

## CAN YOU SOLVE THE MYSTERY AND DISCOVER THE CURE FOR THE VIRUS?

### 1. INTRODUCTION

**Topic(s) of the EER:** Develop creativity and transversal skills

**Target age groups or profiles:** Master Students and undergraduate degree; 8 participants. Biomedical sciences; Industrial engineering; Tourism; Bioinformatics; Psychology; Management; Biology.

**Summary of concrete examples where the EER can be implemented, or how to adapt it to different groups:** Students from different areas of knowledge.

**Duration:** 45 minutes.

### 2. OVERVIEW

#### Background and contextualization of the EER:

The main learning objectives were to develop transversal skills among participants, namely teamwork, communication, critical thinking and creativity.

We also wanted to introduce this methodology to the students, so in the experiment we presented a physical and a digital escape room.

To do this, we set the puzzles' environment in a way that to be solved, the participants should not work alone but as a team instead.

#### Narrative of the EER

Recently, the start of a new world virus was announced to the world. A virus that has the ability to wipe out the entire human race, and which spreads quickly and easily. One country accidentally created the virus, but lost control and the virus began to spread. In a few months, the virus has already spread to a few countries and has killed thousands of people. No one knows which country this virus came from, and no head of state wants to take responsibility.

At this moment, you are in the laboratory where the cure was being produced. This group of scientists was developing a cure, which they would not patent, so that everyone could have access to it at a low cost. The scientists mysteriously disappeared after announcing the discovery of the cure and nobody knows where they are. In the room you can also find the diary of a detective who was investigating the mystery, and was in that room. The detective, who was murdered, left behind only his diary, and some scattered clues.

They have challenges to solve and find three final numbers to open the safe and find the secret cure formula! Attention the information of 3 countries, representing the country that created the virus, the country interested in the cure formula and the place where they were developing the formula. Can you solve this mystery? You have the right to ask for 5 hints, which you can ask for on the computer that is located in the laboratory. Be quick, before you become the next victim!



## PRE-GAME BRIEFINGS

Structure: Open puzzles. No specific sequence is required.

### 3. DESCRIPTION OF THE EER

Materials/logistics:

Description of all the materials needed to implement the EER:

- Computer
- Camara
- World Map
- Lockers
- Safe
- Whiteboard
- Tables
- Clock
- Lamps
- Dictionary
- Magnets
- Encrypted pen drive
- Spice jar set (simulating laboratory glassware)
- Other: Periodical table, sheets of paper, key, images, detective diary

Description of each challenge:

3 main puzzles for find the 3 final numbers

Map (country that accidentally created the virus). Figure 1.

- A map of the world, with coordinates of the countries in which the virus is circulating. 6 countries. (Participants should look up the coordinates on their mobile phones and see which countries these are).
- QR Code with information for distraction.
- Diary of the detective with information to give a hint of the country that created the vaccine (diary with notes)
- Image that represents Japan, in the trash, perforated.  
Answer: JAPAN - 5 LETTERS

Russian dictionary (country interested in the formula to cure the virus). Figure 2.

- Image of Russia with message in Russian (смотреть воду);
- Russian dictionary with page 319, 51 italics. Translation of Russian word (look /water)
- In the dictionary hide a magnet;
- In the tubes – the only place with water – we will have a magnet. To get the magnet out, you'll only get it with another one;
- Inside the magnet we will have the number.



Periodic Table (country that discovered the formula to cure the virus). Figure 3.

- Periodic table and other information on the whiteboard;
- A sequence of numbers can result in names on the table. We put an example on the board;
- It is in the city of Lisbon that the most important laboratory in the world is located, where they found the formula for a cure;
- A false message has been posted where this information is disseminated;
- You must find in the periodic table the word Lisbon and the corresponding numbers;
- This combination of numbers will open the pen drive that will be encrypted, and will have a final number.

Final: The combination of the 3 numbers found will unlock the safe containing the formula to cure the virus.

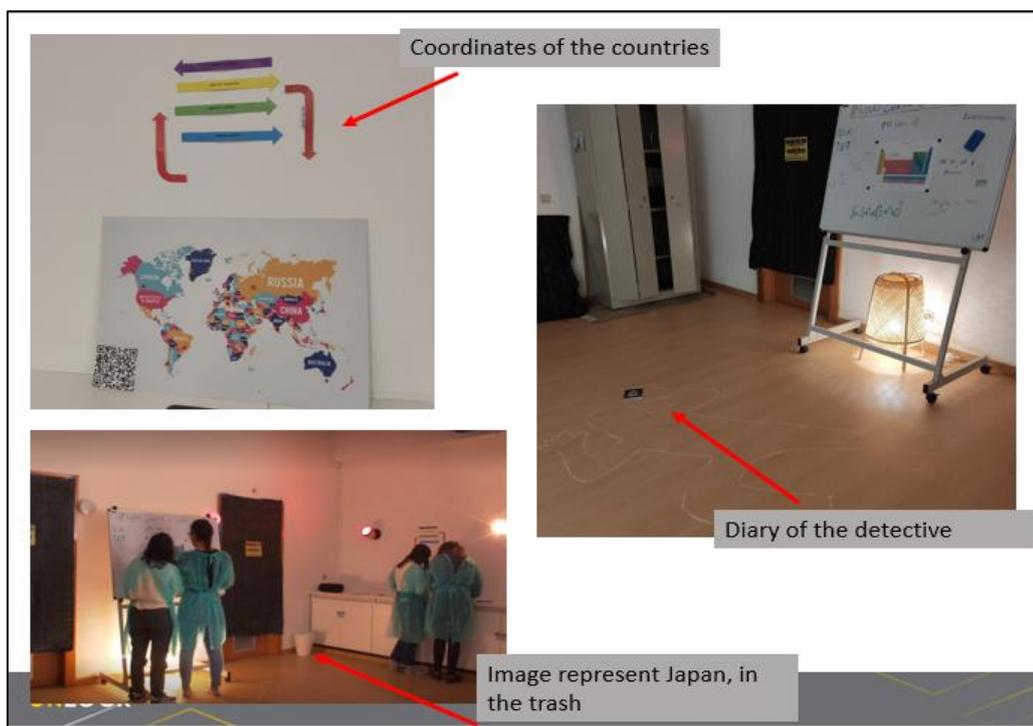


Figure 1



Figure 2



Figure 3

#### 4. FINAL REFLECTIONS

The participants did not know each other at the beginning of the workshop, but they left the room with a sense of community.

The initial results are enthusiastic; students consider the activity immersive for the development of soft skills, mainly teamwork and collaboration.

They were also interested in playing an escape room in the classroom, on their specific topic of study. We created this EER for different higher education students from different areas of knowledge. Therefore, our focus was on developing soft skills.

## 5. OUTCOMES / IMPACT

This escape room was applied in a training programme, at the University of Aveiro, called student to student. Thus, students who were research fellows of the UNLOCK project, applied the workshop with information about the use of GBL, gamification and in special the escape rooms in education and companies.

After this briefing we applied a physical escape room and a digital escape room, for participants in groups to play simultaneously. As we had students from different areas of knowledge, we chose to conduct an escape room on the development of soft skills. To present the methodology to the students.

## 6. LESSONS LEARNED

The challenges encountered were initially in creating the escape room for a diverse group, from different areas of knowledge. We decided that as we wanted to present the escape rooms to the students to do on a general theme and that would engage the students.

As this was the second escape room we created, we verified that the creation process became faster after the first experience; we used all the material from the first escape room, only modifying the narrative and puzzles to make sense with the materials and the story; with time we gradually gain confidence; we don't have control over everything; it is necessary to let the experience flow; giving tips is essential so as not to generate frustration.

## 7. CONCLUSION AND FUTURE OUTLOOK

This was a small activity at the University of Aveiro to disseminate the EER among students. We hope that now with the access to the MOOC, and to the other outputs of the UNLOCK project, more teachers can know the methodology, apply it and make sustainable the use of EERS in education. Thus, as a result, more students will be able to access, know and enjoy the benefits of this methodology.





