PLAY GAMES WITH ME:

EXPERIENCES USING GAMIFICATION FOR ONLINE RESEARCH SKILLS TRAINING

Elisa Rodenburg, Vrije Universiteit Amsterdam, 24 June 2021

VU
VRIJE
UNIVERSITEIT
AMSTERDAM

ROADMAP

1. Theoretical background: Game-Based Learning
2. Introduction to the Escape Room
3. Players, events, feedback
4. Creating the Escape Room
5. Pros and Cons
6. Q&A

Many thanks to Anne Aarts, Lena Karvovskaya and Joanne Yeomans

GAME-BASED LEARNING

- Increase in educational and "serious" games created by (university) libraries
- A theoretical framework for developing and assessing games that teach research skills has been described by Abbott (2019)[1]
- In Game-Based Learning (GBL), game-playing elements ('fun') should be aligned with the learning outcomes, there should be space for reflection, which we built into the formal playing events
- "'Pleasantly frustrating' experiences" (Abbott, 2019)

1. Abbott, D. (2019). Game-based learning for postgraduates: an empirical study of an educational game to teach research skills. *Higher Education Pedagogies*, 4(1), 80-104. https://doi.org/10.1080/23752696.2019.1629825

VU

DATA HORROR ESCAPE ROOM

- Collaboration between three Dutch universities: Vrije Universiteit Amsterdam, Leiden University, Eindhoven University of Technology
- Introduce basic concepts that are addressed in a Data Management Plan (DMP)
- Fun experience for researchers and research supporters
- A player is "locked" in an office and solves puzzles that give them the clues to submit a DMP, after which they can "escape"

VU

So this is the office of Professor Hutseephluts. Although it's dimly lit, as far as you can tell, it looks pretty much like any other researcher's office.

There is a large desk with a computer on it. Before the desk is an old swivel chair, sagging with cushions, where it looks like the Professor spends long hours. On one wall you see a noticeboard with papers pinned almost all over it and on another wall a large map. Next to the desk there's a waste paper bin almost overflowing with papers...nothing unusual there, and next to that a filing cabinet. A second chair sits in the corner of the room where a travelling bag and its contents seem to have been hastily emptied out.

Go to the desk

Take a look at the noticeboard

Check out the filing cabinet

Why is there a video camera on the chair in the corner?

What are these papers in the waste paper bin?

Look at the map on the wall

Open the door

The door is locked!

A piece of paper has been nailed to the door and there's a message on it:

I must submit my Data Management Plan today, otherwise I won't receive my research funding!

Help!!!

Take a look around Professor Hutseephluts' office

Name	Address	Telephone number	Email address	IP address	Blood type	Eye colour	Age	Height
Dracula's son Mihnea	Sibiu, Romania	n/a	n/a	n/a	O-	Scary	560	Tall
Cultural anthropologist	Bucharest, RO	Call the university	At University	At University	?	Brown	50-60	~1m70
PhD Candidate	Bucharest, RO	University	University	University	?	?	?	?
Local guide	Chisinau, MOL	On the website	On the website	n/a	?	?	40-70	?
Famous soothsayer	Kiliya, UKR	On market square	n/a	n/a	?	?	?	?
Vicar of church	Chilia Veche, RO	In the church	n/a	n/a	?	?	'?	?

Personal data

*Vereist

Which of the data in the address book are personal data? (multiple answers possible) *

- [ ] Name
- [ ] Address
- [ ] Phone number
- [ ] Email address
- [ ] IP address
- [ ] Blood type
- [ ] Eye colour
- [ ] Age
- [ ] Height

Volgende

Close the address book and go back to the desk

Take a look around Professor Hutseepbluts' office

PLAYERS, EVENTS, AND TARGET AUDIENCE

- Launch at VU Amsterdam, 29 October 2020
- Played and presented on a variety of occasions
- It can be played individually and in teams of 3-4 people, using breakout room functionality in Zoom
- Two instances: one for independent use and one with additional features to enable competitive playing, during organised events
- Target audience: (beginning and experienced) researchers, (beginning) data stewards

VU

FEEDBACK

- Feedback has been extremely positive
- Suggestions for improvement: questions about technical limitations of the forms, organisational challenges in the live event
- Many players reported learning something new about RDM, others indicated that it reinforced their pre-existing knowledge
- "The interaction with my teammates to solve puzzles and learn about data management. A nicely unique way of learning. Fantastic!"

VU

wow, what an adventure.

as a researcher leaving university this year and going into an AI reserach career, I did not know how ignorant I was about data practices until I stumbled upon this escape room game.

the FAIR principles are very straight-forward, and the puzzles are interactive and fun. I have grown from a rookie researcher to someone who now understands version control, data accessibility, reusability, licensing, metadata, and most importantly, the necessity of a thorough plan before the start of data collection.

I LOVED the horror element in the game, it was full of humour, made me chuckle quite a few times.

at first I thought this game was about data processing, make pretty data visualisation and reporting data - the usual, "bigger" things that researchers focus on. on second thought, all the fundamental things introduced by this game, such as ORCID, DOI, metadata... are as important. thanks for making this realisation happen.

to professor hutseephluts: I don't even know if you actually exist, but if you do, I wish you all the best in your future research endeavours. to the team who developed this game: thank you. my feeling when I started the game was right, it really HAS been an adventure of a lifetime.

to infinity and beyond!

Zhou, C.M. (2021, May 8). *data horror escape room*. Cassandra learns AI. https://www.cassandralearnsai.com/data-horror-escape-room/

CREATING THE ESCAPE ROOM

- Several brain-storming sessions, collaboration, 5-6 people is ideal
- Ideal workflow:
    - First think of a story, things in the room, and how to escape
    - Then think of RDM topics and puzzles to go with them
    - Set up the website, create all the links and include clues and decoys
    - Test the room (colleagues typically like to help)
- Gender-neutral professor Hutseephluts
- We looked at RDM FAQ, rather than consider intended learning outcomes

VU

PROS AND CONS

PROS

- Google Sites is intuitive, good integration with Google Forms
- The website is stable when visited by many people at the same time
- Easy collaboration
- Can be adapted
- Works with different groups/settings
- Can be played for fun or as an introduction to RDM
- Works for online events, can be adapted for physical events

CONS

- You are bound to the limitations of Google Forms
- The life of the website is dependent on someone working at the VU
- Hard to make open for re-use
- Can only really be played once
- Hard to check if it is completed
- Some groups needed guidance – cheat sheet to be published on Zenodo
- The game requires (assumes) familiarity with the concept "escape room"

12

VU

PRACTICALITIES AND Q&A

- The escape room was published with the licence CC BY-SA 4.0
- Feel free to make your own version, play it or share it
- Self-directed version: https://edu.nl/u8mad
- Live-playing version: https://edu.nl/jb9y8
- Any questions?
- If you have questions about re-using, adapting or remixing the escape room, hosting your own live-playing event or building your own escape room, feel free to get in touch via e.j.rodenburg@vu.nl

VU

REFERENCES

Abbott, D. (2019). Game-based learning for postgraduates: an empirical study of an educational game to teach research skills. *Higher Education Pedagogies*, 4(1), 80-104. https://doi.org/10.1080/23752696.2019.1629825

Data Horror Escape Room (2020). *The Address Book*. https://sites.google.com/vu.nl/datahorror/the-office/desk/address-book

The Locked Door. https://sites.google.com/vu.nl/datahorror/the-locked-door

The Office. https://sites.google.com/vu.nl/datahorror/the-office

Yeomans, J. (2020, October 20). *Learn about data management concepts in this online Data Horror Escape Room*. Digital Scholarship @Leiden. https://digitalscholarshipleiden.nl/articles/learn-about-data-management-concepts-in-this-online-data-horror-escape-room

Zhou, C.M. (2021, May 8). *data horror escape room*. Cassandra learns AI. https://www.cassandralearnsai.com/data-horror-escape-room/

VU