

The Open Data Newsroom

Practical guide

The Open Data Newsroom is a role-playing game that immerses students in a data journalism process to solve a local environmental mystery with data.

This is practical guide for everybody out there that what to try it in the classroom.

Share your experience with us.

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General description:

The Open Data Newsroom is a role-playing game with the goal of solving a real-world problem with OD. Grounded in DL and RWPS, the learning design is aimed at supporting elementary school students in developing competencies for participating in OD ecosystems and facing complex real-world challenges with OD. In the game, elementary school students adopt the role of data journalists to solve a local environmental mystery using data and open data. The Open Data Newsroom revolves around unravelling several incidents that have been recently affecting local teenagers, schools and the surrounding environment. What at first were four apparently isolated cases, after the investigation were connected to a bigger case of water and environmental damage caused by a company. Geographical and water quality OD are essential to unravel the mystery by analysing the impact in several locations and time periods (Celis Vargas, Magnussen, et al., 2024; Celis Vargas, Papageorgiou, et al., 2024).

General information:

The game is designed to be played in the classroom. It consists of four cases that need to solve by students following six phases (See timeline) and supported by physical and digital material. Physical material is given to the students printed in envelopes. One envelope per case (See Game Plot file and printed material folder)

Duration 3.5 hours

Materials: Laptops per each student or at least one per team, internet connection

Participants:

Players: 7th to 9th students (aged 14 to 16)

Game editor: External facilitator or teacher

Critical audience: External facilitator or teacher

Game rules:

- The game is played in teams.
- Teams are made as diverse as possible regarding interests and abilities.



- The editor guides the game flow.
- Physical and digital material is provided.
- Internet is needed and research connected to the game encouraged.
- Teams act professionally and autonomously.

Timeline:

Time	Game phase		Description	Material
30 minutes	Introducing the mystery and goal		The editor presents the mystery, game goal and dynamic. Teacher creates groups. Teams choose a case.	Slides Platform
1 hour	Getting and understanding data	Defining storylines	Players receive physical envelopes with news and social media posts about the mysterious events to build their own case board.	Envelops
		Finding data insights	Players analyse OD through visualisations in the platform. OD repository with water quality data and cases data.	Platform
15 minutes	Break			
20 minutes	Editorial meeting and open repository		All teams working in the same case join and meet the editor (5 minutes each). Editor challenges their storylines and data. Teams document their findings to create an open online repository to avoid publishing unsupported claims.	Platform Open online repository
40 minutes	Plot twist - One big case		"Data Journalists Hackers" network presents the hypothesis of a bigger case and introduces self-collected data.	Slides Platform
	Preparing the data story		Players prepare for communicating their solutions to local citizens in the press conference.	Platform Open online repository
15 minutes	Break			
20 minutes	Delivering data: Press conference		Each team presents in 5 minutes. Critical audience makes questions. The chief editor presents the mystery's solution.	Students' work (slides, case boards, etc)

Background:

Everyday different types of data are created from and influencing the way we live and engage in society. Part of this data is opened with the purpose of creating value and increasing innovation, transparency, and citizens' participation. It is called Open Data (OD), "digital data that is made available with the technical and legal characteristics necessary to be freely used, reused, and redistributed by anyone, anytime and anywhere". But not all of us have the competencies and skills for using this open data. Learning OD competencies in school might



help young people to gain important skills for dealing with the complex challenges of our society and engage as active citizens in Open Data Ecosystems.

This is the aim of our PhD research project called “Open Data usage in elementary schools”.

What to know more?

Celis Vargas, A., Magnussen, R., Larsen, B., & Mulder, I. (2024). *Open Data learning designs in elementary school: Defining the essential elements for developing open data competencies*.

Celis Vargas, A., Papageorgiou, G., Magnussen, R., Larsen, B., & Mulder, I. (2024). The Open Data Newsroom: A Game Approach for Developing Open Data Competencies in Elementary School. *Vol. 18 No. 1 (2024): Proceedings of the 18th European Conference on Games Based Learning*. 18th European Conference on Games Based Learning (ECGBL 2024), Aarhus University, Denmark. <https://doi.org/10.34190/ecgbl.18.1.2637>

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