

EGU22-1548, updated on 22 Mar 2023

<https://doi.org/10.5194/egusphere-egu22-1548>

EGU General Assembly 2022

© Author(s) 2023. This work is distributed under the Creative Commons Attribution 4.0 License.



Role-play gaming to teach “Environmental Impact Assessment” in Master’s Degree courses.

Samuele Segoni

University of Firenze, Department of Earth Sciences, Florence, Italy (samuele.segoni@unifi.it)

A role-playing game (RPG) was experimentally included in the teaching activities of the class “Environmental Impact Assessment” (EIA), which is part of two Master’s Degree programs (namely, “Human and Natural Sciences” and “Geological Sciences and Technologies”) of the University of Firenze.

The aim of the “EIA” class is to provide students with the basic technical elements to manage an environmental assessment procedure. The RPG was conceived with two objectives: putting in practice what was learnt during the class and preparing the students to face also the social and political issues commonly associated to relevant projects.

The RPG was about a public debate concerning the EIA procedure of the project for a geothermal plant. Each participant played the role of a character closely involved in the situation: the investor, the project manager, the mayor, an eco-radical, an environmental association, the winemakers (the main local economic activity), the local citizens’ committee, and so on. Each character had a specific goal to reach during the debate: the businessman had to convince the public of the feasibility of the project while minimizing the costs of environmental mitigation measures, the eco-radical had to try to block the project, the mayor was not interested in the project per-se but had to increase his consensus among the citizens, and so on.

The design of the game was complex, as the characters and their objectives were connected or separated by a complex network of personal interests (or ideological perspectives) that would oppose each player to some of the others, contemporarily providing the basis for potential alliances with some others. The gamers’ ability during the debate would be crucial to move the balance and to determine if the project will be accepted or not.

Experimentally, the game session was played twice (during the 2020-2021 and the 2021-2022 classes) and some preliminary outcomes were drawn.

Concerning the game design, it proved to be robust: the game outcome was totally in the hands of the players as confirmed by the opposite outcomes of the sessions played. The first session ended up with a “draw” between two ideologically opposed blocks that did not prevail on the other, leaving the destiny of the geothermal plant unresolved after the debate. During the second session, the “faction” favorable to the project was very effective to debate and managed to move

toward acceptancy of the project some other characters (initially neutral or even moderately negative), mainly using mitigation measures to convince them.

Concerning the teaching experiment, it was considered fully successful. The feedback from the students was very positive, as both classes unanimously agreed on the following points: (i) the game was very useful to put into practice some of the concepts learnt during the theoretical lessons; (ii) the game was useful to understand how difficult is for a scientist/technician to deal with social and political aspects (thus the game represented a valuable complement to the main teaching activities); (iii) they enjoyed the game and recommended to repeat it for the next classes.