

Role-playing game about Urban Solid Waste (USW) Incineration as a methodological strategy to deal with socio-environmental problems at secondary education

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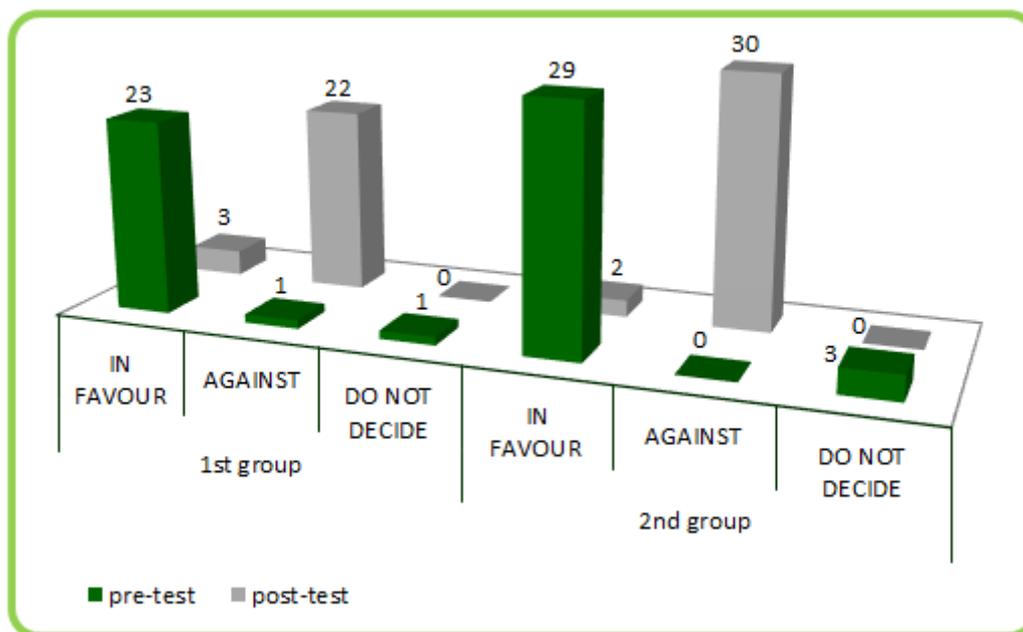
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Keywords: environmental education, role-playing, secondary education

Abstract: Nowadays, the main socio environmental problems, which are key topics in the development of Environmental Education (EE) programmes, are tackled from a transversal perspective in formal education. Pre-adolescents and adolescents do not perceive this difficulties as part of their reality and they neither feel responsible for the current environmental crisis. On this matter, the EE constitutes the key to develop a conscience, a knowledge, attitudes and responsible behaviours towards the environment. Therefore, methodological strategies should be developed in order to integrate the EE into the official curricula through activities which arouse students' curiosity, encourage their inquisitiveness for the investigation, promote critical thought and reflexion, and generate positive environmental behaviours. This work presents the role-playing game as a strategy to the EE in formal education, which is capable of answering to the methodological necessities that appear nowadays when dealing with socio-environmental problems in class at secondary education. The key objective of this paper is evaluate the contribution of the role-playing game, as a methodological strategy at secondary education, to reach the objectives for the EE defined by the Belgrade International Seminary and related to: awareness-raising, understanding of the environment and development of favourable attitudes and aptitudes towards it. Firstly, it describes the design and implementation of a role-playing game about USW incineration with 57 students of two class-groups from A level (1st grade), made as an activity from a didactic unit about sustainable development, within the subject of Sciences for Contemporary World. The didactic proposal was developed through 3 sessions: the first was about the introduction to the topic, the presentation of the activity and the distribution of roles; the second was the development of the game (the dramatisation); and the third was about the reflection and the activity assessment. The role-playing consisted on a dramatization of an assembly, in which the participants had to decide if a project for the construction of an urban solid waste incinerator in its city is approved or rejected. Secondly, it gathers the students' perceptions about the topic discussed before and after the implementation of the role-playing game. This Pre-Post-Test allows to analyse the impact of the role-playing game to the students' opinions and attitudes (Grafic 1). The results obtained support the premise that the role-playing game constitutes a strategy to the EE in formal education, capable of promoting positive attitudes and values in a context close to the students, which can be translated into potentially favourable behaviours towards the environment.

Grafic 1: Pre-Post Test analysis: students' opinions before and after the role-playing game



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