



“Zombie attack” a new way to teach Chemistry

M.M. López Guerrero^{1*}, J.C. García-Mesa¹, M. T. Siles Cordero¹, G. López Guerrero², A. López Jiménez³.

¹University of Málaga, Faculty of Sciences, Department of Analytical Chemistry.

²IES La Arboleda, Pto. Santa María, Cádiz, España.

³University of Málaga, Central Research Support Service (SCAI), Life Sciences, Málaga, Spain.

*Corresponding autor: mmlopez@uma.es

Abstract

The Higher Education requires new models which allow training people able to adapt and survive in changing environments. It is based on the use of technologies and the adaptation of knowledge to people. It is about an education according to circumstances, which is adapted to context and virtual behaviour of people.

One of the main difficulties that lecturers find in the classroom is how to maintain students' attention and interest in their subject, especially when students also think that the subject is not important for their training. In order to motivate these students, innovation in educational techniques and methodologies, such as experiential learning, are progressively being imposed to and/or coordinated with the traditional ones. Escape Room is a very modern concept in education, based on the development of mental skills for the solution of enigmas and problems. It is a tool to develop the cooperative, cognitive, deductive and logical reasoning skills of the students.

In this work, an educational gamification experience based on the escape room concept is presented. The students have 1 hour and 30 minutes to carry out this activity. They will have to solve four puzzles and enigmas that will give them the key to open a treasure chest and finally let them escape from the classroom. Logic, ingenuity and teamwork will allow participants to develop not only chemical competence, but also other basic skills. The story that is told throughout the escape room is a **zombie attack**: the city has been infected (with a virus) and only the occupants of the room where the activity takes place have not been infected. In addition, they can all protect themselves if they are able to open the chest where the antidote is located. The aim of this activity is to enhance the knowledge acquired throughout the semester as well as the development of skills.

Acknowledgements

The authors would like to thank Plan Integral de Docencia de la Universidad de Málaga for financial support of this work.