Game learning analytics: The case of online educational escape rooms - Abstract

Sonsoles López-Pernas [1,2], Aldo Gordillo [2], Enrique Barra [2] and Mohammed Saqr [1]

[1] University of Eastern Finland, Joensuu, Finland
[2] Universidad Politécnica de Madrid, Madrid, Spain

Abstract

Educational escape rooms are team-based learning activities in which students solve puzzles related to a certain subject to accomplish a final goal (usually escaping from a room) [1]. These activities have proven capable of increasing students' knowledge in a variety of subjects and contexts while improving motivation and engagement. A key characteristic of educational escape rooms is that they are time-constrained. Therefore, if students do not complete all the puzzles in time they will not gain exposure to part of the learning materials in the activity. As such, it is crucial to provide timely support to students to prevent them from getting stuck and frustrated, and ensuring they progress through the activity. However, providing such support can be challenging for instructors since they often have to monitor several students at the same time, which becomes even harder in online teaching environments [2]. The Escapp platform [3] provides a solution for this challenge. Escapp is a web platform that allows to conduct online educational escape rooms. Besides providing all the features needed for instructors to set up their escape rooms both online or face-to-face, Escapp provides a learning analytics dashboard that allows to closely monitor students while they play, enabling the detection of lagging players and the provision of hints to help them advance through the escape room. The Escapp platform has been used to conduct several escape rooms at Universidad Politécnica de Madrid [4]–[8] where the learning analytics dashboard has been used to detect lagging students and to optimize the game design. In this presentation, we will show an example of one of these educational escape rooms and how the learning analytics dashboard has played a crucial role in the correct development of the activity. We will discuss current and potential uses of the dashboard and of the data collected from the students. Our goal is to offer an innovative perspective on learning analytics and how they can be adapted to the specific learning scenario of educational escape rooms.

References

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