Game Development as Didactic Strategy for Biochemistry Teaching

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It is well known that students and teachers have difficulties in learning and teaching Biochemistry due to its abstract and interconnected contents. This work proposes a didactic strategy in order to facilitate teaching and learning process in Biochemistry. The strategy was implemented with biological science undergraduate students. At first, the students were divided into groups with a specific topic to develop a game. During the semester, problem based learning cases, online activities like crossword puzzle, essay questions and educational softwares were used to present the content of each topic. The groups were oriented in classroom and online, to choose and organize contents and create ways to approach them in games. At the end of the course the groups played each other games, which were evaluated by teacher and students following some criteria like: creativity, content organization, interdisciplinarity, proposal coherence, instructions clarity, specific content. The game elaboration contributed to the development of social and cognitive functions, such as teamwork and troubleshooting, providing an interesting perspective to the student about knowledge construction process. The strategy showed up students' creativity and ability to reorganize their knowledge to a different education level. In an overview, the results indicate that the proposed didactic strategy is an effective way to enhance learning and to motivate students into Biochemistry topics.

Keywords: didactic strategy, game development, teaching and learning process

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