

GLYCOLYSIS' TRAIL: BIOCHEMISTRY KNOWLEDGE CONSTRUCTION THROUGH AN EDUCATIVE GAME

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The study of biochemistry is complex and unattractive to the most of the students. Teaching strategies have to be established to stimulate the action of the student and involve them in the proposed subjects. For this to happen, the processes and strategies have to be analyzed and developed through cognition tools. The objective of this work was to create, evaluate and apply an educative game called Glycolysis' Trail, as a strategy of teaching-learning in the classes of biochemistry. The game focus was the promotion of group knowledge about the glycolytic metabolic pathway. The game contents are: 1 board, 1 dice, 5 pins, 12 curiosities cards, 54 question cards and 63 complementary game chips. In an experimental tryout, four students joined the test-play in the presence of a mediator that explained the game, corrected execution errors and stimulated the debate between the students. The students were submitted to an evaluation about the glycolytic pathway before and after the game. They observed the necessity of a previous knowledge of the game's subject, and the presence of the mediator. About the use of the game as a tool for learning, the students understood that their mistakes and hits were important to knowledge consolidation and group debate also. The evaluation of the quizzes applied before and after the game, even with a so small experimental group, indicated a significant improvement of the learning-teaching process. The game results suggest that it can be used as innovative complementary tool in the building of the knowledge and the comprehension of the glycolytic pathway.

Key words: biochemistry, educative game, glycolysis