

Evaluation of a Graphical Quiz with Mini-Action Games as an Alternative Assessment Method in Natural Science Education

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Abstract

Educational Computer Games, like quizzes, have been used to make teaching more attractive. Nevertheless, the static nature of the gameplay of quizzes often does not attract the students' attention. In the context of this research, an Educational Computer Game about the subjects of Geology, Geography and Physics aimed for eighth class students was developed. The Educational Computer Game includes graphical quizzes, point and click activities and mini action games covering the three first levels of Bloom's cognitive domain. The goal of this research was to measure, if the Educational Computer Game developed within the framework of this study could aid learning by immediate feedback compared to traditional paper tests. Furthermore, the acceptance of this technological tool was tested. The results of this study showed that both, positive learning results and acceptance of this approach was achieved.

Keywords: Educational Computer Games, Natural Sciences, Bloom's Taxonomy