Learning through Games: Essential Features of an Educational Game

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Abstract
This study investigated the following research questions: (1) Do instructional games augment learning? (2) What is the impact of the challenge and fantasy features in instructional games on learning? For the purpose of this study, a game called “Humatan” was designed to teach human anatomy to high school students based on the Baltimore County Public Schools curriculum. Four different versions of the Humatan game were created:

1. A game with only the challenge feature turned on
2. A game with only the fantasy feature turned on
3. A game with both the challenge and fantasy features turned on
4. A game with challenge and fantasy turned off

High school students from Baltimore County Public Schools (n=202) were randomly assigned to play one of the above four versions of the Humatan game after taking a pretest on human anatomy. After playing the game, they also took a posttest and a survey to obtain information related to their Grade Point Average (GPA), Socioeconomic Status (SES), game skillfulness, gender, and the ethnicity. Since there were no existing survey instruments available for measuring game skillfulness, the researcher created a new survey instrument which was validated by the Survey Research Laboratory in the University of Illinois at Chicago. All the four groups showed an improvement in learning, which suggests that instructional games augment learning. Students who played the game version with only the challenge feature turned on (n=48) scored a higher average gain score than the students who played other variations of the game. Analysis of variance showed a main effect of challenge on the gain score, F (3, 198) = 4.71, p = .003. Students who played with only the fantasy feature turned on (n=52) obtained the lowest average gain score. This implies that the challenge feature significantly improved learning and the fantasy feature did not significantly improve learning. The GPA, SES, game skillfulness, gender, and the ethnicity of the students did not show any significant impact on learning.

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Games-exercises. They usually take 10-15 minutes and are aimed at improving the cognitive abilities of students, are a good tool for the development of cognitive interests, understanding and consolidating educational material, applying it in new situations. This is a variety of quizzes, crosswords, puzzles, charades, puzzles, the explanation of proverbs and sayings, riddles. Educational games are games explicitly designed with educational purposes, or which have incidental or secondary educational value. All types of games may be used in an educational environment, however Educational games are games that are designed to help people learn about certain subjects, expand concepts, reinforce development, understand a historical event or culture, or assist them in learning a skill as they play. Game types include board, card, and video games. As educators, governments, and Learning Through Game Playing. This book is written for people who are interested in helping children learn through games and learn about games. The intended audience includes teachers, parents and grandparents, and. Page 6. Introduction to Using Games in Education: A Guide for Teachers and Parents Chapter 8 discusses the development of game-based lesson plans. Chapter 9 provides very brief introductions to a miscellaneous collection of ideas related to the topic of games in education. If I were writing a longer book, some of these topics would be individual chapters. Appendix 1 summarizes the problem-solving strategies explored in the book. Learning through gaming - the dream form of studying in developed countries and often the only way of getting basic - but very important - knowledge for children in developing countries. Does learning through gaming make sense, and if so, how games can help worldwide population to get and improve important knowledge? Comapre this value with average number of years of schooling in various countries which are available in following interactive map. Average number of years of schooling which people spend in various countries since 1870. Educational games in developed countries. Educational system in most developed countries is open to everyone regardless of wealth, standing or national source.