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Introduction

EDUCATIONAL GAME is an interactive game developed to enhance students' knowledge and performance of students . Aimed at middle and high school students, the game incorporates problem-solving, quizzes, and simulations to teach different topics. This project focuses on the design and development of an educational game aimed at enhancing student learning through gamification. By integrating core educational content with game mechanics such as rewards, challenges, and feedback, the game seeks to promote active learning, critical thinking, and sustained interest in the subject matter. It also highlights the educational objectives, target audience, and the impact the game has on student engagement and learning outcomes.



Purpose of the Project:

- To create an engaging way for students to learn about different topics in a less tiring way.
- To assess the effectiveness of gamification in improving knowledge retention and interest.

Method

Platform: Web-based (compatible with tablets and smartphones)



Game Mechanics: Levels with missions, drag-and-drop quizzes, time challenges

Participants:

Students or learners
Game-based learning group



Materials

PYTHON
C++

Results:

- Improved knowledge retention: Students often remembered concepts better due to active participation and repetition.
- Higher test scores: Players who used the game as a study tool performed better on assessments.
 - Faster concept acquisition: The Game accelerated understanding through immediate feedback and interactive content

Conclusion

So this has demonstrated that educational games can significantly enhance learning outcomes and engagement among middle and high school students. It highlights the potential of game-based learning in environmental education, encouraging wider adoption in classrooms

References

- 1.Gee, J. P. (2007). What Video Games Have to Teach Us About Learning and Literacy. Palgrave Macmillan

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