

عنوان مقاله:

Saray: A Solfege Learning Computer Game Based on Voice Analysis

محل انتشار:

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نویسندگان:

نازنین علی فرشباف اکبری - *MSc Student in Computer Arts- Computer Games Production, Cognitive Augmented Reality Lab (CARLab), School of Multimedia, Tabriz Islamic Art University, Tabriz, Iran*

یونس سخاوت - *Assistant Professor in Computer Science, Cognitive Augmented Reality Lab (CARLab), School of Multimedia, Tabriz Islamic Art University, Tabriz, Iran*

محمدرضا آزاده فر - *Professor, School of Music, Tehran University of Art, Tehran, Iran*

صمد روحی - *Instructor in Information Technology (IT), School of Multimedia, Tabriz Islamic Art University, Tabriz, Iran*

خلاصه مقاله:

Introduction: The methods and tools used for learning are rapidly changing. One of the most interesting fields in educational tools are computer games. "Saray" is a solfege training video game, through which the players take solfege rehearsals in form of challenges while tracing a folklore story. The game receives the player's voice through the microphone. **Materials and Methods:** Based on the algorithm and the written code, the player's voice was analyzed, and its fundamental frequency was extracted. The obtained frequency was entered into comparative calculations with pre-written patterns. If the user's voice frequency was within the defined range, the user would be successful and would earn the score. **Results:** Solfege exercises took the form of intra-game challenges from basic to advance levels. Behind the scenes, all input sounds were processed. The frequency of the input sounds was analyzed to implement this process. The result of the analysis was compared to pre-designed didactic patterns that were confirmed by the music master. The result of this comparison revealed the correct or incorrect user feedback in the game. **Conclusion:** Exercising in the form of games motivates players to spend more time for training, and has high .impact because of the attractiveness of video games

کلمات کلیدی:

Serious games, Training, Sight reading, Gamification, E-learning

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