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Developing a Video Game (Historia's Nightmare) and Finding Out if We Can Use It to Raise Social Awareness and Improve Learning

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Abstract : One of the most necessary things in the present time is raising social awareness about global warming and climate change among the people. Though many types of mediums and techniques have been used to teach people about this global phenomenon, there are still more effective ways to reach people with useful information about global warming. As many traditional methods to teach people about global warming and climate change did not work well, video games were overdue. To learn how effective a video game can be in this regard, we developed a Video game, "Historia's Nightmare," that teaches people about Global warming and climate change. The game was designed to entertain people and give them an idea about the reasons and consequences of global warming and climate change while not being like traditional educational games. The game threw a mini quiz consisting of two MCQs based on the information shown in the game, where a gamer had to pass the quiz to reach the next level. We published the game on different platforms to let all types of people play and complete our experiment effectively. The game continuously communicated with our server to send data about gamers' performance. We observed the data, including the participants' performance, time spent, quiz score, and the in-game feedback on a regular basis, and finally came to a verdict. In our experiment, we have found that most participants positively accepted the game and learned something new. The participants who spent more on our game performed better in both quiz and the game. Our experiment's result demonstrates that video games can be a great way to teach people something, particularly to raise social awareness about global warming and climate change. It also demonstrates that the game can be a significant element in education and learning improvement.
Keywords : video game, global warming, social awareness, climate change, education, feedback