AirXorcist: Raising Awareness About Air Pollution through Narrative Storytelling in Computer Game

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ABSTRACT

Air pollution has been on the rise and poses a severe problem that needs the public's attention and action. There is an urgency to raise awareness about air pollution among the people. Computer games can be used as a medium to raise awareness about topics of interest, such as air pollution. We have conducted an online preliminary survey among public members through random sampling to study their awareness level on air pollution and general opinion about a computer game. From the survey, we have found that the public has inaccurate knowledge about air pollution, and some of them were not aware that they have directly contributed to air pollution as well. The survey has also revealed that there is a need for role-playing game (RPG) educative games for the public. Thus, an edutainment RPG computer game entitled "AirXorcist" was developed using the Agile methodology to raise awareness about air pollution. We have also employed a story-telling method in the game to educate players about air pollution. Two tests, namely pre-game and post-game tests, were conducted to determine whether the game can raise public awareness about air pollution. From the analysis, we obtained the t-test statistics = -7.072 and p-value = -0.000002. The result shows sufficient evidence to suggest that the AirXorcist game has successfully helped relay information and raise public awareness about air pollution.

Keywords: Air pollution, awareness, computer game, edutainment, story-telling

INTRODUCTION