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論文題名 : A Study on Immersion Component in Full-Body Game Gesture

(全身を用いたジェスチャーゲームの没入感要素の研究)

区分 : 甲

## 論文内容の要旨

Digital entertainment games have become one of the most popular leisure technologies globally. One type of video game has been increasingly popular among gamers that is the console's game (e.g., PS2/PS3/PS4, Xbox 360/Xbox One, Wii/Wii U). The full-body game gesture is one type of the console game which has been increasingly popular, since their introduction in 2010.

Nowadays, the full-body game gesture is not only implemented for entertainment purpose but also implemented in other related fields such as large public displays, mobile robot control, TV controls, storytelling, augmented reality, Kinect for education game. It also expanded for promoting physical well-being such as physical activity, physical health, and exercise game. In the area of physical health and exercise, the full-body game gesture is significant not only to improve the physical health of patients but also to attract and to entertain the patients to use the game.

While full-body game gesture is promising technology which could be implemented in many areas. Several issues are needed to be solved to improve the quality of the full-body game gesture. Initially, the majority of the existing design recommendation available was widely presented for the general game and not presented for the full-body game gesture. Additionally, there is limited understanding for designing the full-body game gesture. This study found only several studies which present their results as a recommendation for designing the full-body game gesture. Another issue, there is a problem on the existing design of full-body game gesture. The design of full-body game gesture was developed based on trial and error without basic knowledge about what makes this type of game interest for the user.

Therefore, the goal of this study is to present a recommendation for designing the full-body game gesture based on immersion components. To achieve the goal, this study conducts the theoretical and experimental study. The main results obtained a recommendation for designing the full-body game gesture based on immersion components. Such design recommendation expects that it could help game designers to create a more interest game for the user, effective game design and enhance the user enjoyment and experience. The recommendation expects to give the benefit for related application fields such as digital entertainment purpose, physical health and exercise game.