

Investigating Sense of Immersion as an Addiction Factor in Different Game Play Cases

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The game industry always aims to provide players with the best experience and entertainment. For this purpose, the industry develops many strategies to attract players for the game. Thanks to these strategies, games have the potential to take people from their daily lives and take a break from thinking about the troubles of everyday life and dragging them into a different world. It is called "immersion" when people move away from the real world while they are playing, forgetting themselves, and not being aware of what is happening around them. Many studies have shown that the sense of immersion is a positive relationship to game addiction.

There are studies on how the sense of immersion is influenced by many factors such as personality traits, graphics in the game, the way the game is played, and even the eye-view (first person view, third person view). Two different case studies have been presented in this study. One of the focus is on the effect of game control equipment (keyboard, joystick, movement-based Kinect) on the sense of immersion, while the other one focuses on the type of game (strategy and fighting) and the way of play (individual, two people on the same keyboard with two people on the internet).

Study 1

In Study 1, the difference in sense of immersion according to the features of the game played and the type of play. In Erzurum, 74 (48 females and 26 males) middle school students participated in study. The students randomly played different games in different ways on different days. As they are easy to reach from the network of MoNE, casual games such as Fire and Water, Fire and Water 2 (better graphics version) and Regular Show Fight (fighting game) have been chosen. After each play, the students filled an immersion scale originally prepared by Jennet and colleagues and adapted to Turkish by the authors. Analyses showed that there was no difference between the level of immersion resulting from the interaction of the game and the type of play. However, there is a significant difference at the $p < .05$ level in terms of the game played when the type of play is fixed. Students who play Regular Show Fighting, a very fast-paced platform game, have a higher level of sense of immersion while there is no difference between games with the same gameplay but graphically different (Fire and Water - Fire and Water 2). According to the different playing situations of Fire and Water games, it has been revealed that the students playing individually have a higher level of immersion than the players who play together on the internet. In the other two games, there was no difference in the type of playing.



Study 2

The second study was carried out based on the hypothesis that as the control mechanisms increased the interaction, the sense of immersion might also increase. With the participation of 60 university students selected via convenient sample selection, the effect of the game controllers on the sense of immersion was investigated. The sample was randomly divided into 3 groups, each group played with the keyboard, joystick and Kinect (motion-based control) of the SkiRanger game, with a different controller. It was found that the group played with Kinect (M = 57.7) had a higher score than other two controls at $p < .01$ level. The groups played with joystick (M = 49.1) and keyboard (M = 48) did not show any difference.

Discussion and Conclusion

The results show that both game characteristic and the type of play can affect the sense of immersion. The speed, flow, simplicity of the game make it easier for people to enter the game world. On the other hand, results show that individual play has a sense of immersion more than other types of play. It may be recommended to choose the games that need to make more decisions, and because it is thought of as an addiction factor, it is advisable to carefully choose the platform games that children often play. Moreover, it can be predicted that when playing with different friends over the same computer, it can prevent addiction by creating a more social environment.

The results of Study 2 show that the more the interaction with the game world, the more the sense of immersion. However, even though a motion-based control can provide a sense of immersion in a short time, it can be said that physical fatigue will not increase the playing time compared to other hand-played games. On the other hand, it should not be forgotten that increasing the interaction without lifting the player from the place can also increase the sense of immersion and lead to a tendency to addiction.