How do you maintain engagement in a simulation game?

Introduction

Simulation games simulate real-world activities and situations, offering players immersive experiences across various scenarios. However, maintaining player engagement throughout the gaming experience is a challenge. This dissertation explores the strategies and elements involved in sustaining engagement in simulation games.

1.1. The Importance of Simulation Games in Engaging Players

Simulation games are a distinct type of video game that provides both entertainment and education to players. Unlike traditional games that are purely for fun, simulation games offer the opportunity to explore complex scenarios, learn new skills, and pursue various interests. They are important for player engagement because they allow players to experience authentic situations and face meaningful challenges. This immerses players in a simulated world that resembles reality, creating a powerful sense of engagement and motivation to explore, experiment, and master the game's environment.

It is crucial to keep players engaged as it enhances their immersion and enjoyment and creates a sense of involvement and investment in the virtual world. Simulation games are significant in this aspect as they enable players to explore and interact with simulated environments that may mirror everyday tasks. Simulation games are appealing because they captivate players by offering a platform for experiential learning, strategic decision-making, and creative expression.

1.2. My Hypothesis

I hypothesise that keeping players engaged in simulation games may be achieved by either adjusting the difficulty level of the game, designing gameplay mechanics and game worlds that combine the feeling of being fully immersed in the game with the desire to achieve certain objectives, or by acknowledging the personality traits of players who naturally enjoy such games.

1.3. Evaluating Game Elements: Difficulty, Mechanics, Aesthetics, and more

Several factors such as challenge level, gameplay mechanics, visual appeal, and storytelling are crucial in determining how players engage with simulation games. These elements form the

foundation of the gaming experience, impacting how players interact with the game, what motivates them to keep playing, and how they feel while playing. Game developers can create captivating gameplay experiences that appeal to players by thoughtfully designing these components.

1.4. Research Papers / Articles

This dissertation references a variety of research papers and articles to explore the topic of maintaining engagement in simulation games. Key texts include "Creating Competitive Opponents for Serious Games through Dynamic Difficulty Adjustment" by Kristan et al., "The Autotelic Personality: Finding Happiness in Flow" by Flow Psychology, and "Flow and Immersion in Video Games: The Aftermath of a Conceptual Challenge" by Michailidis et al. These works provide valuable insights into the mechanisms and factors influencing player engagement in simulation games, serving as foundational sources for analysis and discussion.

Theoretical Background

Simulation games have become quite popular in the gaming world, as they provide players with an experience that closely resembles real-life situations. In this section, we will explore the theories that explain how simulation games can keep players engaged. This includes studying various hypotheses and research findings to gain a thorough understanding of the topic.

2.1. Hypothesis Expansion

Building on the ideas presented earlier, I hypothesise that using techniques to adjust the game's difficulty level based on the player's performance, utilizing personality traits that promote self-motivation, and creating immersive experiences can result in long-term engagement in simulation games. Dynamic difficulty adjustment is the ability of a game to modify its level of challenge according to the player's performance, ensuring a balance between difficulty and enjoyment. For example, in a city-building simulation game, dynamically adjusting the complexity of tasks such as managing resources or balancing budgets might lead to increased player engagement by providing appropriate challenges tailored to individual skill levels.

In simulation games, players can become more engaged if the game mechanics encourage them to explore and master the game world. This is especially true for players who have a

natural tendency to be self-motivated and enjoy the immersive gameplay experience. To enhance player engagement even further, game developers can create environments and stories that seamlessly integrate with the gameplay mechanics, allowing players to feel like they are truly a part of the game world.

2.2. Research Findings

The following research articles and papers have been referenced to inform the understanding of maintaining engagement in simulation games:

Kristan et al. explore the use of dynamic difficulty adjustment techniques in serious games, highlighting their potential to enhance player engagement ("Creating Competitive Opponents for Serious Games through Dynamic Difficulty Adjustment" Kristan et al., 2020, p. 156).

Flow Psychology discusses the concept of an autotelic personality and its association with achieving flow states in various activities, including gaming ("The Autotelic Personality: Finding Happiness in Flow" Flow Psychology, 2011).

Michailidis et al. critically review the concepts of flow and immersion in video games, emphasizing their importance in understanding player engagement ("Flow and Immersion in Video Games: The Aftermath of a Conceptual Challenge" Michailidis et al., 2018, p. 1682).

These sources provide valuable insights into the mechanisms and factors influencing player engagement in simulation games for further analysis.

2.3. Analysis of Research

Analysing the findings from the research, it becomes evident that dynamic difficulty adjustment techniques, autotelic personality traits, and immersive experiences play significant roles in maintaining player engagement in simulation games. However, there may be conflicts or similarities in the findings across different studies.

For example, while Kristan et al. (2020) emphasize the effectiveness of dynamic difficulty adjustment techniques in enhancing player engagement, Michailidis et al. (2018) suggest that immersion and flow may not differ in current studies. These conflicting perspectives warrant further examination to reconcile differences and gain a comprehensive understanding of the factors influencing player engagement in simulation games.

Textual Analysis

In this section, I conduct a textual analysis to explore the factors contributing to engagement in simulation games, focusing on specific case study games to illustrate these factors.

3.1. Factors Contributing to Engagement in Games

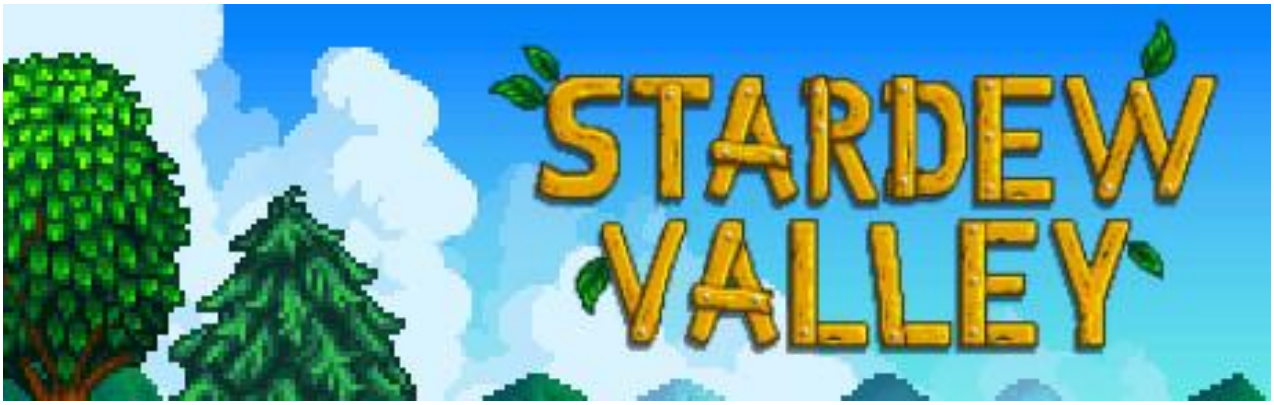
Research suggests several key factors that contribute to player engagement in games. These factors include dynamic difficulty adjustment, narrative depth, immersive environments, social interaction, and meaningful rewards (Kristan et al., 2020; Flow Psychology, 2011; Michailidis et al., 2018). Dynamic difficulty adjustment techniques ensure that the game adapts to the player's skill level, maintaining an optimal level of challenge to sustain engagement (Kristan et al., 2020). Narrative depth enhances immersion by providing players with compelling storylines and character development, encouraging emotional investment in the game world (Flow Psychology, 2011). Immersive environments stimulate player's senses and curiosity, drawing them into highly detailed worlds meant for exploration and discovery (Michailidis et al., 2018). Social interaction and meaningful rewards offer opportunities for player collaboration and progression, reinforcing engagement through shared experiences and substantial achievements (Kristan et al., 2020).

3.2. Engaging Players in Existing Simulation Games: A Study of Cities: Skylines, Stardew Valley, and The Sims 4

I have researched three case study games to evidence my hypothesis; Cities: Skylines, Stardew Valley, and The Sims 4. These are extremely popular video games that offer unique gameplay experiences within the simulation genre.

[Cities: Skylines] Steam Workshop: https://store.steampowered.com/app/255710/Cities_Skylines/

Cities: Skylines is a city-building simulation game that allows players to design and manage their metropolis. Its engaging gameplay stems from its dynamic difficulty adjustment, allowing players to tackle urban planning challenges at their own pace, while its immersive environments and detailed city-building mechanics foster creativity and strategic thinking (Kristan et al., 2020; Michailidis et al., 2018).



[Stardew Valley] Steam Workshop: https://store.steampowered.com/app/413150/Stardew_Valley/

Stardew Valley, a farming simulation game, captivates players with its narrative depth and meaningful rewards. Players can cultivate crops, raise animals, and build relationships with villagers, experiencing a sense of progression and accomplishment as they transform their humble farm into a thriving community (Flow Psychology, 2011; Kristan et al., 2020).

[The Sims 4] Steam Workshop: https://store.steampowered.com/app/1222670/The_Sims_4/

Similarly, The Sims 4, a life simulation game, immerses players in virtual worlds where they can create and control customizable characters, build homes, and pursue various life goals. Its combination of immersive environments, social interaction, and meaningful rewards keeps players engaged as they explore diverse life paths and stories (Flow Psychology, 2011; Michailidis et al., 2018).

3.3. Analysis

After examining various research articles and papers, I found that these studies emphasized the importance of making simulation games more challenging and providing meaningful rewards to keep players engaged, while others argued that creating a deep and immersive story also plays a significant role. However, all studies agree that giving players an immersive environment and opportunities for social interaction is crucial. We can see how games like Cities: Skylines, Stardew Valley, and The Sims 4 have successfully incorporated these factors to create engaging and rewarding gameplay experiences, as shown in studies by Kristan et al. (2020), Flow Psychology (2011), and Michailidis et al. (2018).

Conclusion

In this dissertation, we have explored the strategies and elements involved in maintaining engagement in simulation games. Through an examination of research articles and papers, as well as a textual analysis of case study games, we have gained valuable insights into the factors contributing to player engagement in this genre.

4.1. Summary

Adjusting difficulty levels based on player performance, creating a narrative with depth, building immersive environments, encouraging social interaction, and giving meaningful rewards are key factors that contribute to keeping players engaged in simulation games.

My hypothesis finds support in the literature. Although some parts of the theory, like the importance of certain personality traits, need more proof through research, my analysis shows that combining these elements does increase player involvement in simulation games.

4.2. Concluding Remarks

In summary, keeping players engaged in simulation games is a complex task that involves paying attention to several aspects of gameplay. Game developers should consider various techniques to adjust difficulty levels, create engaging storylines, build immersive environments, facilitate social interaction, and offer meaningful rewards to make the game more captivating. By understanding what factors contribute to player engagement, game developers can design more immersive and enjoyable games for players worldwide. As technology advances and new

insights emerge, the study of player engagement in simulation games continues to evolve and offer opportunities for further exploration and innovation.

I thank those who wrote and published the papers and articles used in this dissertation.

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