# Analysis of the Difference Between PUBG and FORTNITE

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*Abstract:* PUBG is a video game that was created in South Korea. Following its release, the book gained significant popularity in East Asia and was subsequently acquired by China's Tencent Game Company. Subsequently, it underwent revisions and transformed into the Chinese iteration of PUBG, renowned as "Peace Elite". FORTNITE originated in North Carolina, USA, and has gained immense popularity across the United States. The purpose of this study is to conduct a comparative analysis of 100-player competitive games in East Asia and the United States. The study will utilize game interaction comparison, game design comparison, and game experience comparison to identify the strengths and weaknesses of each region. The study's findings indicate that PUBG's earlier publication has resulted in a more thorough and realistic system and game settings. The cartoonish aesthetics and futuristic elements of FORTNITE have garnered significant appeal among a large number of young players.

Keywords: PUBG, FORTNITE, game experience, Battle Royal Game

#### 1. Introduction

PlayerUnknown's Battlegrounds is a battle royale game created by PUBG Studios and distributed by Krafton. It was created on March 23, 2013. The game drew inspiration from the Japanese film Battle Royale (2000) and incorporated modifications previously developed by Brendan "PlayerUnknown" Greene for other games. It was subsequently developed into a standalone game under Greene's creative guidance. This game is the inaugural installment in the PUBG universe series.

Fortnite is an internet-based video game created by Epic Games and launched in 2017. It provides three distinct versions of the game modes, including "Save the World" and "Battle Royale," which were published as early access versions in 2017, while "Creation" was released on December 6, 2018. "Save the World" is compatible with Windows, macOS, PlayStation 4, and Xbox One. On the other hand, "Battle Royale" and "Create" not only support the aforementioned platforms, but also extend their compatibility to include Nintendo Switch, iOS, and Android devices. These versions of Fortnite Battle Royale have identical gameplay and utilize the same game engine. The research discovered that many characteristics related to the experience of fun consuming, such as escapism, emotional engagement, sensory stimulation, enjoyment, and arousal, had a substantial impact on the behavioral intents to engage in playing PUBG [1]. Umair Rehman, Muhammad Umair Shah, and Amir Zaib Abbasi's research suggests that sensory, imaginative, and emotional experiences significantly influence male players' desire to play PUBG games. Escapism, emotional investment, enjoyment, and arousal are critical factors that greatly impact the behavioral intention to play PUBG. Prior to the

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release of the iPhone app, schools worldwide were already experiencing the impact of Fortnite, as kids entered classrooms fatigued and lethargic due to extended gaming sessions [2]. According to Rick Marlatt's research, FORTNITE exerts a significant influence on students, leading them to engage in late-night gaming sessions on a daily basis. The rapid ascent of free-to-play games can be attributed to a combination of factors including a worldwide economic downturn, the proliferation of affordable mobile games, and the widespread appeal of online multiplayer experiences [3-4]. Sal Qadir's research demonstrates the arduous nature of understanding the game's origins and development up to the present. This study employs interaction design comparison, game design comparison, and gaming experience comparison to assess and contrast these two very important and widely acclaimed entities. Which option is superior? The purpose of this research is to enhance the comprehensiveness of future games in terms of their settings, and to gain a deeper understanding of their strengths and weaknesses in order to maximize the strengths and minimize the weaknesses.

## 2. Interaction

The design of PUBG, a survival game, has a high degree of realism. Upon commencing the game, every player will proceed to the birth island and await the arrival of more players. Once the player count hits a range of 90-100, the game transitions into the skydiving phase. Players have the freedom to select their desired landing site based on their personal preferences. PUBG boasts a really comprehensive system. This is seen in the prompt response of the system to player reports, as it promptly evaluates and selects additional players for examination in order to ascertain if the reported player is utilizing an unauthorized software. This additionally enhances the player's experience to a significant degree. Within the game, players have the ability to utilize character actions and graffiti. Within the game options, you have the option to customize the operation keys to align with your personal usage preferences. Additionally, you may modify the color of the poison circle and bombing zone to accommodate color-blind players. Within the settings, players have the option to choose the language and regional server, thereby enhancing gameplay by facilitating a more effortless and seamless experience.

The aesthetic of FORTNITE diverges significantly from that of PUBG. The emphasis is primarily on forthcoming technologies, seen by its utilization of a cartoon-like aesthetic.



Figure 1: The game image of FORTNITE (Left) and PUBG (Right) [5]

At the commencement of the FORTNITE game, a total of 100 players will descend from a flying airship by parachute and proceed to look for weaponry within the vicinity of their landing. This game will also include the sale of cosmetic items and collaborative activities that are influenced by player

feedback. While this game shares features such as an inspection system, language change settings, and service area settings with PUBG, it presently lacks color customization options. Consequently, color-blind players may encounter difficulties in effectively playing this game.

## 3. Game design

The PUBG game has a character-related mechanism with a maximum health restriction of 100. The initial health value is also set at 100, although the upper limit may vary depending on the game mode. Periodically during gameplay, the system will generate a signal circle on the map, which will progressively decrease in size. When the signal value reaches 0, the character will transition into a condition of being fallen, and will remain in a state of low signal value after being rescued by teammates. The system will additionally generate a designated bombing zone and carry out indiscriminate bombing within that zone. Upon being bombed, a character will immediately transition into a condition of being fallen. After a character experiences a fall and is subsequently saved, their remaining health will be reduced to a mere 10%. All weaponry included in the game are sourced from real-world counterparts. Various types of vehicles encompass jeeps, motorbikes, boats, and so on. Medications encompass a range of items such as first aid kits, bandages, medical kits, energy drinks, medications, and other related products. Each item possesses distinct attributes such as spawn speed, damage, replacement time, effective range, speed limit, and healing time. This game features a wide variety of firearm and vehicle cosmetic modifications. The game also features gun accessories, like muzzles, grips, magazines, stocks, and sights. This game consists of a grand total of 7 maps. Erangel, at 8km by 8km, holds the distinction of being the largest map in the game. Additionally, it is the oldest and most authentic map. The vehicles and armaments on the map undergo random replenishment. Each map contains various tiers of supply points. Greater material quality will attract a larger number of both human gamers and artificial intelligence bots. The purported hazards and advantages coexist. The technology generates robots on the map to decrease the game's difficulty and ensure its fluidity. Upon its creation, a robot is equipped with various items including tools, weaponry, medical supplies, and ammo. This enhances the focus on the player while providing them with ammunition and supplies.

The character mechanics in the FORTNITE game have a maximum limit of 100 Hit Points (HP) and 100 Energy Shield. The map signaling system functions similarly to that of PUBG. Contrary to the signal circle, the character's health is directly diminished when they are located outside of it. This game exhibits a pronounced emphasis on weapon technology. Upon touchdown, the player can utilize the currently equipped melee weapon to strike the wall and acquire fragments. These fragments enable players to construct walls within the game. Additionally, this feature enables players to intercept hostile projectiles, ascend to previously unattainable elevated positions, or employ these firearms to attract notice and retaliate against adversaries. FORTNITE features weapons that are categorized based on their rarity, ranging from gray, green, blue, purple, to gold. The damage and rate of fire of firearms progressively improve as their level advances, starting with gray at the lowest level and culminating in gold at the highest level. The game also employs this grading system for medicines and missiles. In fortunate circumstances, players may come across rare golden items, such as a jetpack that grants the ability to fly, or a teleportation stone that enables fast ascent to great heights and teleportation. These scarce artifacts enhance the game's competitiveness and playability.

#### 4. Game experience

During gameplay in PUBG, when a player sustains a hit, they will visually perceive the trajectory of the bullet as well as experience the physical manifestations of the injury. Players have the ability to customize the injury effects according to their preferences. To enhance the sense of impact, distinct

sounds will be produced based on the specific body area that the player strikes when attacking an adversary. Additionally, when the player is incapacitated, he will instruct his teammates to rescue me. Upon being struck, the player will vocalize the presence of imminent peril. Upon the player's demise, he will express gratitude towards his comrades. Simultaneously, gamers will be granted incentives commensurate with their account level, which also serves as an indication of a player's gaming proficiency. Players have the ability to alternate between the first-person perspective and the thirdperson perspective in the game. Additionally, players have the option to utilize in-game currency to modify their character's gender and physical appearance. After achieving victory in a match, players have the ability to summon airdrop trophies and engage in a celebratory dance alongside their teammates. Once players fail, resurrection will be unattainable. Players have the option to observe their teammates or opponents in order to acquire new abilities, or they can opt to review videos of their own eliminations to identify areas for improvement. The verisimilitude of PUBG has garnered a diverse player base across various age groups and geographical locations, resulting in its significant popularity in 2020, particularly in East Asia. Due to its widespread recognition, PUBG has attained a level of popularity where it is widely known by the general public. According to Yun Feng Liu, "Player Unknown Battle Ground" (PUBG) has gained significant popularity as a multiplayer battle royale game in recent years [4]. These facts are sufficient evidence to establish that PUBG is a highly popular game that consistently ranks among the world's best.

When playing FORTNITE, a distinct ding-ding-ding sound is heard when the player directs their attention towards an opponent, indicating the presence of a shield on the enemy. Upon being hit, a circular azure shield materializes before the player, mitigating a portion of the inflicted harm. The shield vanishes when its protective capacity reaches zero. Upon the player's shield being lost and subsequently being struck, the character will experience bleeding at the point of impact and their head will tilt backwards. This is a visual representation of the player receiving damage, serving as an indication that the character has been injured. FORTNITE lacks the ability to transition to a first-person perspective, resulting in a notable disparity in realism compared to PUBG. However, the weaponry and props in this game are more abundant compared to those in PUBG. As an illustration, the game offers players the opportunity to acquire various advanced weapons like as rocket launchers, howitzers, displacement stones, and jetpacks. These additions contribute to the visually stunning and highly dramatic combat within the game, hence appealing to a significant number of young players. The data for 2023 is accurate, indicating that 62.7% of Fortnite players fall within the age range of 18 to 24. Approximately 90% of the player base of Fortnite consists of males. The majority of Fortnite players, over 78%, choose to play the game on a gaming console [6].

## 5. Conclusion

PUBG exhibits a greater emphasis on future-oriented elements and realism. Within the game, players are expected to adhere to a systematic operational strategy in order to achieve victory. Conversely, FORTNITE necessitates players to possess a high level of skill and expertise in understanding and using the game's rules. Each of these games possesses unique qualities and enjoys high popularity and rankings. Players have the option to select between these two games according to their personal tastes and areas of competence. However, only through firsthand experience will they be able to determine which one is more ideal for them. The study is limited by the absence of personal experiential knowledge of the game, as well as its lack of comprehensiveness, detail, and sufficient supporting data. Nevertheless, we will do a more comprehensive investigation of these two games in the future to uncover additional facts. Abundance of empirical evidence. Engaging in this research and inquiry has provided the author with a comprehensive comprehension of the significance and relevance of these endeavors for the future advancement of the game. This establishes a solid

groundwork for future investigations on these two games, rendering forthcoming research more significant.

#### **References**

- [1] Rehman, Umair, et al. Investigating Male Gamers' Behavioral Intention to Play Pubg: Insights from Playful-Consumption Experiences. Frontiers in Psychology, U.S. National Library of Medicine, 2022.
- [2] Marlatt, Rick. "Capitalizing on the Craze of Fortnite: Toward a Conceptual Framework for Understanding How Gamers Construct Communities of Practice. Sage Journals, 2019.
- [3] Qadir, Sal. The History of Gaming and Its Web3 Future. Galaxy, Galaxy, 2022.
- [4] Liu, Yun Feng. Esports Player Placement Prediction Using Machine Learning-- a Case Study of PlayerUnknown's Battleground. Airiti Library, 2022.
- [5] Vintage Is The New Old Zeta Wing 2 Has Been Released for the Commodore 64 Comments, 2023. https://www.vintageisthenewold.com/
- [6] Trivedi, Chintan. Play Fortnite in PUBG! Deep Learning Helps You Change Your Painting Style. "Jishi Developer Platform-Computer Vision Algorithm Development Platform-Jichi Technology, 2019.