Inspecting the Usability Issues of *Fortnite: Battle Royale*'s Graphical Interface

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ABSTRACT

The 2017 video game *Fortnite* developed by *Epic Games* is one of the most popular battle royale game across the globe. Albeit widely receiving positive reviews, there are players complaining about the game's graphical interface. To investigate what gives the players bad experience, we conducted a usability research targeting on new players to this game. The players would be asked to play the game for a short time, then take surveys to reflect their experience about the game's graphical interface. By analyzing the collected data, we could gain guidance on possible improvements of *Fortnite*'s UI design, as well as insights for similar games in the future.

Introduction

In 2017, *Epic Games* released their online video game *Fortnite*. The game became a huge financial success quickly after being released, reaching over 10 million players within two weeks [Wik24, Tay10]. Among its various game modes, *Battle Royale* which is a competitive survival game mode, turns out to be the most popular one. [Wik24].

Albeit widely receiving positive reviews, there are players complaining about the game's graphical interface design. Some says that "*Epic* is intentionally inducing players into other game modes" [bt123]; some says that the UI design "is mobile-first" and "lacks proper beta tests because players definitely won't like it" [Red23, Pal23].

There are more issues with the in-game HUDs, which are used to deliver the players important information (e.g. HP, location, inventory) or indicate the interactable elements in the game world. Since there is too many information on the screen at the same time, the UI feels too complex and confusing. This complexity seems to disproportionately affect novice players, making the learning curve steep and often overwhelming. The game does not feature a tutorial system to guide the players. Some players might feel lost in their first round of battle, as they are unfamiliar with the goal of the *Battle Royale* mode. Also, some important systems

of the game (like the building system) could be totally missed by new players. This is because there is no ingame guidance introducing these systems to the players. The only way for players to discover them is by observing other players using these mechanics during live gameplay. But by the time they need to use the system themselves, they still don't know how to do it.

The problem we aim to address is the usability of *Fortnite*'s interface for new players who are unfamiliar with the game. By interfaces, we mean the game lobby, menus, and HUD. Our study will focus on the learnability aspect of usability, as the challenges experienced by novice players are likely linked to their ability to learn and navigate the game's interface effectively.

Related Works

Beside of players' disputes, the graphical interface of a video game is often discussed from two opposite aspects in academical literatures. One aspect stands on the players' subjective stance and tries to analyze the players' experiences; the other aspect evaluates the graphical interface by applying general design principles.

Player-centric

The earliest usability studies on video games could be traced back to the beginning of the 2000 decade.

S. Cornett's study in 2004 examined usability challenges faced by new players of MMORPGs, the results of which showed that huge improvements for players that are not familiar with the target genre could be done [Cor04].

In *H. Fricker*'s study in 2012, players were asked to play a collection of high-rated FPS games for a week-long period [Fri12]. Follow-up surveys yielded some useful understandings of certain UI features used with the FPS game that players found the most helpful. We will try to follow these understandings in our research.

E. Bergman and *T. Hermansson*'s research in 2023 specifically studied the effect of one particular form of in-game GUIs—Head-up Display (HUD)—on game immersion [BH23]. A group of experiment participants were asked to play *Fortnite* while their biometric data were being measured. The results showed no significant effect of the choice of HUD design on game immersion, but the players' subjective rating were affected by the design.

Design Principle-based

This style of approach started a bit later than the previous approach.

In 2008, *Pinelle at al* collected a wide range of game reviews and developed 10 usability heuristics based on the coded categories [PWS08].

Desurvire and *Wiberg* furtherly proposed a more refined and complete list of heuristics on game play in 2009 [DW09], called *Heuristics of Playability* (PLAY) which can be applied game development to aid game developers in usability/playability research during the development cycle.

Similar to [BH23], *Fagerholt* and *Lorentzon* tried a constructive approach by studying preliminary academical literatures in various related fields and formulating hypothesis how player immersion is connected to the user interfaces [FL09]. After evaluated by user studies and user tests, they proposed a set of guidelines that cover different aspects of the designing of an FPS game.

Although with these heuristics it shall be easier to identify the usability problems in *Fortnite*, *Cheremnykh*'s research in 2024 showed that a one-size-fits-all approach to UX design or gamification may not be uni-

versally effective [Che24]. Therefore in this research, we will use these previously proposed heuristics and frameworks only as a general guidance instead of a fixed rulebook.

Method

We ask players with no prior experience playing *Fortnite*. Participants would be asked to perform two tasks:

1. Play Session: We ask participants to play a full round of Battle Royale mode in *Fortnite* game. This takes about 20 minutes in total.

2. Survey: After the end of the play session, we send players a link to an online survey. Refer to Table 1 in the appendix for the survey questions.

The survey begins with general questions to understand the participants' gaming backgrounds and preferences.

We then will move to questions focused on their perceptions of different usability elements in the game, such as how easily they were able to navigate the game menus, how quickly they could find the information they needed on the screen, and what percentage of the interface elements they believe they understood.

To gain deeper insights, we will include more detailed questions, about specific graphical elements on the game screen. Participants will be asked to explain the meaning and usage of these elements to verify their understanding.

After all data is collected, we will analyze it by coding the player responses into categories. Then we will disscuss on each topic to see how they are reflected in the game and compare them to usability and design principles proposed by other researchers preliminarily.

Bibliography

[Wik24] "Fortnite." [Online]. Available: `https://en.wikipedia.org/wiki/Fortnite`

[Tay10] J. Taylor, "How many people play Fortnite? Player count in 2024." [Online]. Available: `https://www.dexerto.com/fortnite/how-many-people-play-fortnite-player-count-1666278/`

[Wik24] "Fortnite Battle Royale." [Online]. Available: `https://en.wikipedia.org/wiki/Fortnite_Battle_Royale`

[bt123] bt1234yt, "Epic changed the lobby UI for Fortnite to focus more on user-created maps and the in-game shop.... and players are reacting negatively to it." [Online]. Available: `https://www.reddit.com/r/fuckepic/comments/175pe8r/epic_changed_the_lobby_ui_for_fortnite_to_focus/`

[Red23] "Fortnite interface update is amateur in terms of basic UI/UX standard's." [Online]. Available: `https://www.reddit.com/r/FortNiteBR/comments/175ih7f/fortnite_interface_update_is_amateur_in_terms_of/`

[Pal23] PaleDot2466, "Fortnites UI Evolution is terrible." [Online]. Available: `https://www.reddit.com/r/FortNiteBR/comments/177phuk/fortnites_ui_evolution_is_terrible/`

[Cor04] S. Cornett, "The usability of massively multiplayer online roleplaying games: designing for new users," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, in CHI '04. Vienna, Austria: Association for Computing Machinery, 2004, pp. 703–710. doi: `10.1145/985692.985781`.

[Fri12] H. Fricker, "Game user-interface guidelines: creating a set of usability design guidelines for the FPS game user-interface," 2012.

[BH23] E. Bergman and T. Hermansson, "Effect of Head-up Display Design on Game Immersion." 2023.

[PWS08] D. Pinelle, N. Wong, and T. Stach, "Heuristic evaluation for games: usability principles for video game design," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, in CHI '08. Florence, Italy: Association for Computing Machinery, 2008, pp. 1453–1462. doi: `10.1145/1357054.1357282`.

[DW09] H. Desurvire and C. Wiberg, "Game usability heuristics (PLAY) for evaluating and designing better games: The next iteration," in *Online Communities and Social Computing: Third International Conference, OCSC 2009, Held as Part of HCI International 2009, San Diego, CA, USA, July 19-24, 2009. Proceedings 3*, 2009, pp. 557–566.

[FL09] E. Fagerholt and M. Lorentzon, "Beyond the HUD-user interfaces for increased player immersion in FPS games," 2009.

[Che24] P. Cheremnykh, "Gaming the Metaverse: User Experience Analysis and Insights From Fortnite," 2024.

[14] C.-C. Hsu and E. C.-H. Chen, "Exploring the elements and design criteria of massively-multiplayer online role-playing game (MMORPG) interfaces," in *Human-Computer Interaction. Interacting in Various Application Domains: 13th International Conference, HCI International 2009, San Diego, CA, USA, July 19-24, 2009, Proceedings, Part IV 13*, 2009, pp. 325–334.

Appendix

No.	Question
1	What games do you usually play and what are your favorite genres?
2	How many hours per week do you usually play games?
3	Have you played any battle royale games (like PUBG/Unturned) previously? How familiar are you with this game mode?
4	Have you encountered any trouble starting the game?
5	What elements in the game world did you interact with? Briefly describe how you interacted with them.
6	What weapons/props have you used in the play?
7	Have you used the building mechanics in the game? Under what circumstances?
8	Were you able to find the information you need easily on the screen?
9	How do you feel about the game's UI? Is it too simple, too detailed, or just right?
10	What is [screenshot] this UI element representing?
11	How did you know the answer to the previous question?
12	Write anything you'd like to add about the game's UI.

Table 1: The questions used in the survey.