User-Centered UI & UX Enhancements in FPS Mobile Games: A Case Study of Standoff 2

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"This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Multimedia and Creative Technology

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APPROVAL

This Project titled "**User-Centered UI & UX Enhancements in FPS Mobile Games: A Case Study of Standoff 2**" submitted by **Md. Solaiman Hasan Rahim (202-40-703)** to the Department of Multimedia and Creative Technology, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Multimedia and Creative Technology and approved as to its style and contents. The presentation was held on 11 January, 2025.

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DECLARATION

I hereby declare that this project has been done by me under the supervision of **Mr. Md Salah Uddin, Assistant Professor & Head of the Multimedia and Creative Technology Department, Daffodil International University**. I also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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ABSTRACT

This study examines user-centered UI and UX enhancements for *Standoff 2*, an FPS mobile game, to improve player engagement and satisfaction. FPS mobile games face unique challenges in providing intuitive controls, responsive feedback, and clear navigation within limited screen space. Through user surveys, gameplay observations, and usability testing, this research evaluates the impact of design adjustments, such as optimized control layouts and improved visual hierarchy, on user experience. Findings indicate that these UI and UX refinements significantly enhance usability and enjoyment, enabling quicker recognition of game elements and smoother interactions. The study underscores the importance of prioritizing user-centered design in FPS mobile games to elevate player experience. In conclusion, targeted UI/UX improvements can foster more engaging and satisfying gameplay, providing a foundation for future developments in mobile FPS game design.

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CHAPTER 1: INTRODUCTION

1.1 Background

One title, Standoff 2, is capturing the leadership of the burgeoning mobile gaming industry, with the first-person shooter (FPS) genre at the forefront. Since its launch by Axlebolt in 2017, Standoff 2 has been known for its engaging competition, various modes, and real-time multiplayer capabilities. However, the constrained display size and touchscreen-based controls of mobile-delivered FPS [First-Person Shooter] [Games] introduce their challenges and demands that user-centered UI and UX design[2] be used to fine-tune the gameplay.

Good user interface (UI) and good user experience (UX) are irreplaceable in first-person shooter games because the players are highly dependent on interactive controls, easy and convenient navigation, and visual guidance.[9] To enhance usability and accessibility, contemporary game design trends prioritize intuitive interfaces, a clear visual hierarchy, and adjustable options. Realizing these trends can lead to greater user enjoyment, better play, and attracting more players in the competitive mobile gaming market.

1.2 Problem Statement

Despite Standoff 2's market success in the mobile first-person shooter genre, user experience is compromised by UI and UX shortfalls. Players voice concerns about the game's mechanics and PC controls, even though PC first-person shooter games necessitate simple controls and immediate, unambiguous feedback.

The configuration of on-screen controls is a primary concern. First-person shooter games require accurate control of movement, aiming, and shooting; however, many players face difficulties with the position and size of the controls in Standoff 2, thus, especially on smaller screens. This has the effect of frustration because of accidental inputs or navigation problems, largely in high-risk games.

The user feedback and visual hierarchy of the game both pose a third challenge. The sometimes-dense HUD in Standoff 2 can distract concentration by blurring important information, like ammunition levels and health, for example. Due to strong visual noise and a lack of information about hits, and registrations such as damage, players have difficulty in controlling performance or adapting their strategies.

Moreover, the players' capacity to personalize the interface, essential for accessibility and fostering an inclusive experience, is hindered by the limited customization options in the control settings and user interface. If Standoff 2 can overcome these problems, it has the potential to increase its potential to match player aspirations in the competitive, mobile-first-person shooter market, thereby increasing immersion, responsiveness, and enjoyment.

1.3 Research Questions and Objectives

The purpose of this study is to explore how player satisfaction and usability in the stand-off virtual shooting mobile game, Standoff 2, can be improved by applying human-in-the-loop UI and UX enhancement. The following questions of critical importance constitute in the foundation of the investigation:

1. **How can the user interface/user experience (UI/UX) of Standoff 2 be enhanced to further the player's responsiveness and control?**
2. **What are the concrete design changes that should occur to the HUD and visual hierarchy that can help capture player attention by reducing clutter on the interface?**
3. **How can the personalizibility of the Standoff 2 interface be further improved to suit the varying requirements of individual users and accessibility demands?**

The study's goals are to answer these questions:

- For evaluating the UI UX[2] features of Standoff 2 and pinpointing such features needing improvement.
- To suggest improvements to the design of the user interface/user experience (UI/UX)[2] that will increase player engagement, player feedback, and overall happiness.

- For testing the effect of these improvements on user stickiness and game experience.

This project aims to deliver practical ideas for enhancing FPS mobile gaming interfaces, hence fostering a more engaging and accessible user experience.

1.4 Hypothesis

This research asserts that the strategic improvement of Standoff 2's UI and UX[2] design will significantly influence player experience, engagement, contentment, and performance. The principal hypotheses include:

1. **Improved responsiveness and control layout:** The size and positioning of in-screen controls annoy many players so they often trigger unintended inputs. Optimizing the layout for diverse screen sizes and user preferences would enhance precision, diminish aggravation, and augment control, especially in rapid gameplay scenarios.
2. **Visual hierarchy optimization:** Players have difficulty identifying relevant info due to the current messy HUD. Through selective presentation of relevant information (e.g., enemy positions, health) the interface could be simplified, in turn reducing the cognitive load thereby increasing the gamers' focus. This will also provide a more realistic experience, faster reflexes, and better decision-making.
3. **Expanding customization options**: By providing adjustable controls, HUD dimensions, and color palettes, a diverse array of user preferences and accessibility needs can be addressed. This adaptability is poised to enhance player satisfaction and player allegiance, because gamers are going to be able to adjust the player experience to their own taste.

Summing up, the idea behind these improvements is to develop a more approachable, relatable, and intuitive experience that may hopefully increase retention, performance, and overall reaction to Standoff 2.

1.5 Significance of the Study

This research is significant for examining how UI/UX design improvements might benefit player experience, retention, and commercial results in Standoff 2, a widely played mobile FPS game. [9] This research aims to improve gameplay and reduce player attrition by tackling essential UI/UX challenges, such as control responsiveness, HUD clarity, and customization options. To guarantee the game's sustained success, it is essential to enhance these design components to boost retention and elevate user satisfaction.

This study offers game developers critical insights into enhancing UI/UX to alleviate prevalent player issues, hence fostering a more intuitive and pleasurable experience. Strategic design improvements can strengthen the connection between the game and the players, lengthening the playing of the game, and fostering loyalty. These enhancements may lead to positive reviews, recruiting new players and helping Standoff 2 remain a force in the fps market. This study will assist developers in making data-informed decisions for future updates that more effectively fit with player requirements.

This study highlights the integration of usability, aesthetics, and accessibility for game designers through a practical case study in mobile FPS UI/UX design. Information gained in this analysis can be used by designers to produce visually engaging, adaptive, and user-focused interfaces. These findings can be applied to future game productions, especially in genres that require both continuous gameplay and quick decision-making.

On a business level, improved player retention and increased lifetime value (LTV) per player are closely related to better UI/UX design. Long-term profitability" is determined by the companies' willingness to attend events, buy in-game (sic) economies and continuously play the game. In addition, a better user experience leads to positive word-of-mouth, which means enhancing the fame of the game and naturally expanding its base.

This work has the ability to improve in daily player experiences and business returns for Standoff 2, helping developers, designers, and players.

1.6 Structure of the Paper

There are eight chapters in this paper, which are all dedicated to one of the most influential aspects of the study related to the UX/UI enhancements of *Standoff 2*:

- **Chapter 2: Literature Review and Theoretical Foundations -** In the present chapter, the current literature and theoretical baseline for UI/UX design in mobile FPS games are reviewed. It provides a foundation for an understanding of the concepts and trends in game UI/UX.
- **Chapter 3: Methodology -** This chapter describes the research methodology used in the evaluation of the current UI/UX of *Standoff 2* as well as the procedures used to recommend improvements.
- **Chapter 4: Analysis of the Current UX/UI in Standoff 2 -** This chapter provides an examination of the current UI/UX design in *Standoff 2*, highlighting significant user experience challenges based on feedback, evaluations, and personal observations.
- **Chapter 5: UX/UI Design Principles and Best Practices -** This chapter examines the fundamental concepts of good game UI/UX design, utilizing existing best practices to guide the design recommendations for *Standoff 2*.
- **Chapter 6: Proposed UX/UI Improvements for Standoff 2 -** This chapter delineates the suggested UX/UI design modifications for *Standoff 2*, informed by the insights derived from the analysis and best practices examined in preceding chapters.
- **Chapter 7: Evaluation of the Proposed Changes -** This chapter assesses the effectiveness of proposed UI/UX improvements based on player testing or simulation in order to assess the changes.
- **Chapter 8: Conclusion and Recommendations -** Conclusion and proposals This chapter summarizes the key results, stating conclusions from the study and suggesting improvements and further research.

Each chapter builds on the previous one to provide a comprehensive analysis of UX/UI in *Standoff 2* and to concretely suggest areas for improvement.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FOUNDATIONS

2.1 UX/UI in Video Games: Definitions and Importance

User Experience (UX) and User Interface (UI) design are crucial in determining player interaction with video games. User Interface (UI) includes all visual and interactive components, including menus, buttons, and the Heads-Up Display (HUD), delivering essential game information to players. A well-designed UI is transparent, user-friendly, and visually appealing, guaranteeing it does not hinder the gaming experience. [1]

User experience (UX) emphasizes the overall player experience, ensuring it is accessible, emotionally engaging, and user-friendly. An optimal user experience (UX) maintains player engagement by ensuring the game is responsive, enjoyable, and devoid of aggravation. [1]

Both ***UI*** and ***UX*** are essential to a game's success, particularly in mobile games where screen space is constrained. An intuitive design and favorable user experience improve player retention and happiness. Subpar UI/UX design, however, can result in confusion, irritation, and diminished player involvement. [2]

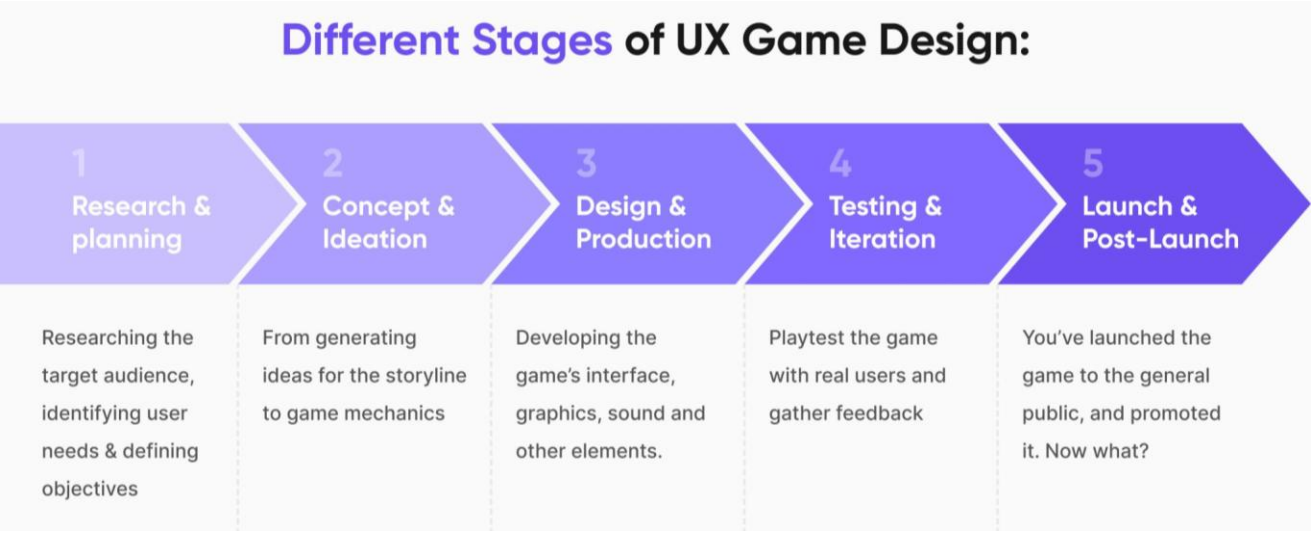

Figure 2.1: Stages of UX in Game Design

2.2 Human-Computer Interaction (HCI) and Game Design

Human-Computer Interaction (HCI) is a fundamental domain in video game design, emphasizing the development of intuitive, accessible, and pleasurable interfaces. Fundamental HCI principles encompass usability, facilitating effortless navigation and control for players, and feedback, delivering visual, audio, or tactile responses to inform players of their activities. [4]

Uniformity in design diminishes cognitive burden, enabling gamers to comprehend and maneuver the interface effortlessly. Affordance guarantees that items like as buttons and icons clearly indicate their purpose, hence improving user engagement

User-centered design entails collecting feedback via testing to enhance the interface based on player requirements. By implementing these HCI principles, developers may cultivate immersive, engaging experiences that enhance player pleasure and retention.

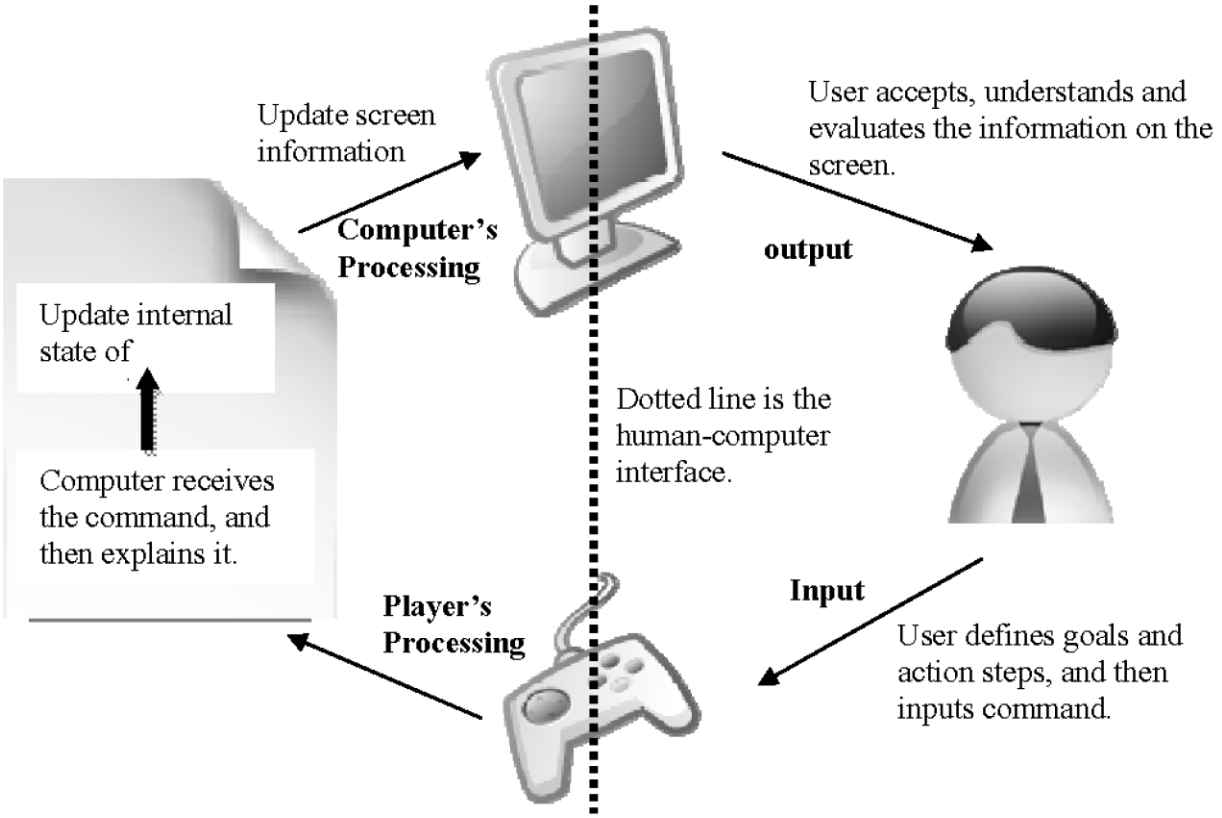

Figure 2.2: Human Interaction in Game (Loop)

2.3 UX/UI in First-Person Shooter (FPS) Games

First-person shooter games such as ***Standoff 2*** necessitate an intuitive user experience and interface design to harmonize immersion with critical gameplay information. Health bars, ammunition counts, and mini-maps should be readily available without overcrowding the screen.

Efficient feedback, akin to hit marks and health indicators, facilitates prompt decision-making. Touchscreen controls on mobile devices must be accurate, with adjustable features to enhance accessibility.

Effectively managing **cognitive load** is essential; minimalist user interface designs diminish distractions and improve concentration. **Fitt's Law** [22] posits that user interface elements should be positioned for rapid and effortless access to enhance efficiency. [5]

In summary, FPS UI/UX design must harmonize usability, immersion, and accessibility by employing dynamic, minimalist features to enhance gameplay.

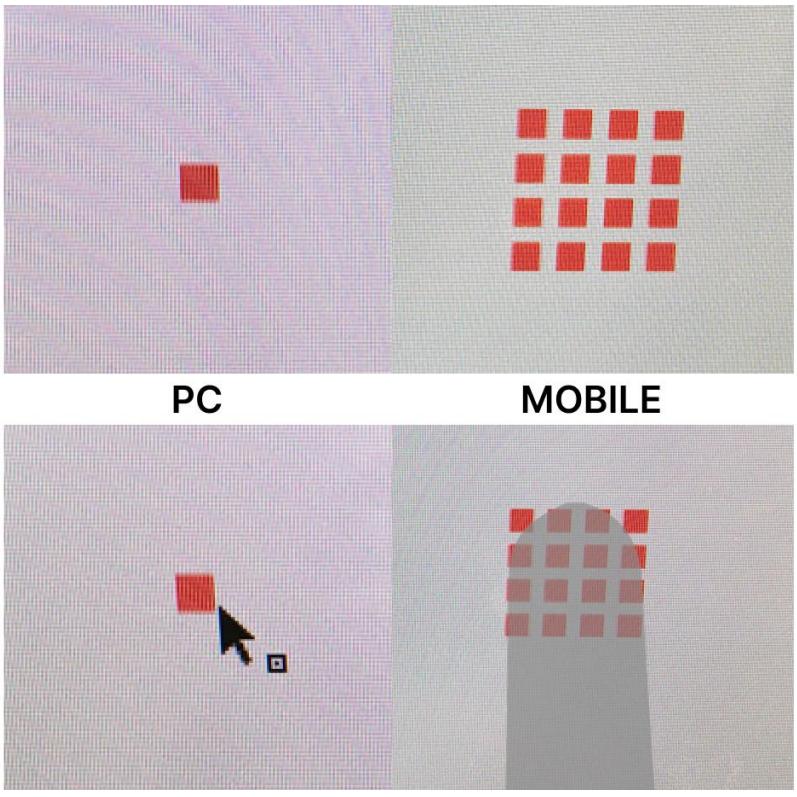

Figure 2.3: Interactive Zone for Usability (PC vs Mobile)

2.4 Industry Trends in Game UX/UI

In recent years, game UX/UI design has increasingly prioritized the enhancement of player experience through technological innovations. Prominent themes encompass minimalism, adaptive interfaces, accessibility, and data-driven design, all designed to enhance usability across platforms.

Minimalism [1] emphasizes streamlined, uncomplicated designs that diminish visual clutter and cognitive burden. In FPS games such as Standoff 2, minimalist HUDs featuring translucent overlays and discreet icons facilitate player concentration on gameplay while conveying essential information, including health and ammunition status.

Adaptive interfaces guarantee a uniform experience across various platforms, including mobile phones and game consoles. In the context of FPS games, this entails responsive controls for touchscreens, gamepads, or keyboards, thereby facilitating a smooth user experience. [11] [12]

Accessibility is an increasing concern, incorporating features such as customized controls, colorblind modes, and audio clues. These enhancements promote inclusivity in games, allowing players with diverse abilities to partake in the experience.

Data-driven UX/UI design employs player feedback and in-game analytics to perpetually refine the user interface, mitigating pain spots and augmenting usability. [5]

In conclusion, these trends are fostering more intuitive, inclusive, and entertaining gaming interfaces.

2.5 Cognitive Load and Flow Theory in Gaming

Cognitive load denotes the mental exertion required by players to assimilate information in games. In first-person shooter games, regulating cognitive load is essential for sustaining player involvement. An intricate interface can inundate players, resulting in dissatisfaction, whereas a streamlined UI allows players to concentrate on gameplay, enhancing satisfaction. [14]

Flow theory, created by Mihaly Csikszentmihalyi, delineates a condition of complete immersion and focus in an activity. In first-person shooter games such as Standoff 2, attaining a state of flow is crucial for maintaining player engagement. Players achieve flow when the task aligns with their skill level, fostering a sense of accomplishment.

Cognitive load and ***flow*** are interrelated concepts. An inadequately designed user interface or convoluted controls might impede flow by depleting cognitive resources. For instance, an inordinate amount of time spent maneuvering through menus or deciphering HUD information detracts from gameplay concentration.

An effectively designed FPS user interface facilitates flow by delivering clear, intuitive feedback without inundating the player. Adaptive HUD components, responsive controllers, and immersive environments maintain player engagement and challenge.

2.6 Case Studies of Successful FPS UX/UI Designs

Titles such as ***Call of Duty Mobile, Critical Ops, PUBG Mobile, and Valorant*** provide essential design insights for enhancing ***Standoff 2.***

Call of Duty Mobile employs a simple HUD that delivers essential information through dynamic color variations for rapid awareness while maintaining easy menus and controls to minimize cognitive strain. [4][29]

Critical Ops emphasizes simplicity through a streamlined HUD and customizable controls, guaranteeing clarity devoid of distractions. [29]

PUBG Mobile modifies the HUD according to the player's circumstances, providing contextual controls and dynamic feedback for an equitable experience. [29]

Valorant integrates contemporary design with practicality, maintaining a basic HUD while offering explicit indicators for health, armor, and skills. [29]

Insights from these games indicate that ***Standoff 2*** should streamline the HUD, implement color-coded indicators, and provide customizable controls to enhance user experience. [29]

CHAPTER 3: METHODOLOGY

3.1 Research Design

This study utilizes a mixed-methods approach, combining qualitative and quantitative techniques to thoroughly examine UX/UI enhancements for *Standoff 2*. This design makes it possible to test quantifiable information and qualitative user comments in order to gain a full understanding of the interface.

The quantitative aspect entails the acquisition of statistical data via user surveys and gaming analytics. Metrics such as user satisfaction, interface suitability, player retention, and task completion will provide insights into usability questions and their impact on the gaming experience.

The qualitative part consists of an extensive interview and user test sessions in order to get comprehensive and unconstrained feedback on interface perceptions, difficulties, and recommendations for improvements. A/B testing [16] multiple UI designs will provide data on player's preferences and engagement. [2]

The study aims to help base evidence-informed suggestions for an enhancement of the UX/UI design flow of *Standoff 2* that better fulfills the users' requirements and expectations by embedding the above methodologies.

3.2 Data Collection Methods

In order to gather as much information as possible about the current UX/UI design of *Standoff 2*, and identify places of improvement, a range of data collection techniques were used **(user interviews, surveys, game analytics, usability tests)**. Each strategy offered distinct perspectives on the user experience.

1. **User Interviews**: Semi-structured interviews were done with Standoff 2 participants to gather qualitative feedback regarding their personal experiences with the game's UI.

Players were asked how satisfying they found the user interface, what difficulties they experienced, and what they suggest to improve. These interviews provided the kind of free-form, unconstrained responses that give insight to the emotional and cognitive aspects of the game logs that could be missed with other techniques.

2. **Surveys**: By using a structured survey from a larger group of players, quantitative data about several UI functions such as navigation, accessibility, and responsiveness was also collected. The survey comprised both multiple-choice and Likert-scale questions, allowing for an extended study of the satisfaction of the users and the identification of common defects of the game's UI.
3. **Game Analytics**: Alongside direct user feedback, data from Standoff 2's analytics platform were examined to monitor player behavior and interactions with the user interface. Metrics include time spent in menus, drop-off rates during games, and frequency of menu interactions facilitated the identification of friction spots, such as perplexing navigation or suboptimal menu design, that may be obstructing the user experience.
4. **Usability Tests**: Usability tests were conducted with a group of subjects to evaluate different UI prototypes or design variations. Participants engaged with both the existing and suggested user interface designs, while their interactions were monitored to evaluate usability, task completion duration, and satisfaction levels. These evaluations enabled the confirmation of suggested improvements and the confirmation that these improved the user's needs.

By combining these approaches, the work gained a comprehensive understanding of the UX/UI problems in *Standoff 2* and resulted in specific, actionable content for informing the development of more intuitive, user-friendly interfaces.

3.3 Sample and Participants

The selected participants for this survey were chosen to offer varied insights into the user experience of ***Standoff 2's UI design***. The sample comprised:

1. **Standoff 2 Players**: Players with varying skill levels, from amateur to expert, were prioritized. This diversity facilitated the identification of various player interactions with the UI and the detection of usability concerns.
2. **FPS Mobile Gamers**: Mobile gamers who regularly played FPS games were also recruited. Their reply contained comparisons with other FPSs as well as a focus on the most commonly used UI/UX methods in the industry to help in determining whether the problems in Standoff 2's design were idiosyncratic or systemic.
3. **Expert Game Developers**: Professionals with experience in FPS game development with a background in first-person shooter (FPS) game development and mobile user interface (UI) and user experience (UX) design, to get technical tips. The combination of the expertise allowed us to point at components that are relevant to the UI interaction with gameplay and performance optimization.
4. **UI/UX Designers**: Seasoned designers with expertise in mobile games provided insights on usability principles, design aesthetics, and user engagement, aiding in the enhancement of design improvements.

In so doing the study sought to mobilize all available input, by including participants from these populations to combine with the expert advice of all these users.

3.4 Instruments and Tools

This work used a battery of instruments to collect data rich in details about the user experience of the Standoff 2 UI design. These tools were critically chosen to gain both qualitative and quantitative data to perform a holistic assessment of UI changes to achieve player satisfaction. The subsequent instruments and tools were employed:

1. **Interview Guides**: A semi-structured interview protocol was used to generate rich qualitative data. The questionnaire included questions about players' experience with the user interface, design usability problems, and suggestions for improvement.
2. **Surveys**: A structured survey collected quantitative data from a large sample of players. The survey used Likert-scale items to measure self-perceived usability and various styles

of multiple-choice and open-ended questions for the evaluation of the design elements including navigation and visual design.

3. **Prototyping and Design Tools**: **Figma** [28] was utilized to develop visual prototypes for prospective UI modifications. These tools allowed rapid cycles and usability testing and therefore quick changes in response to feedback.

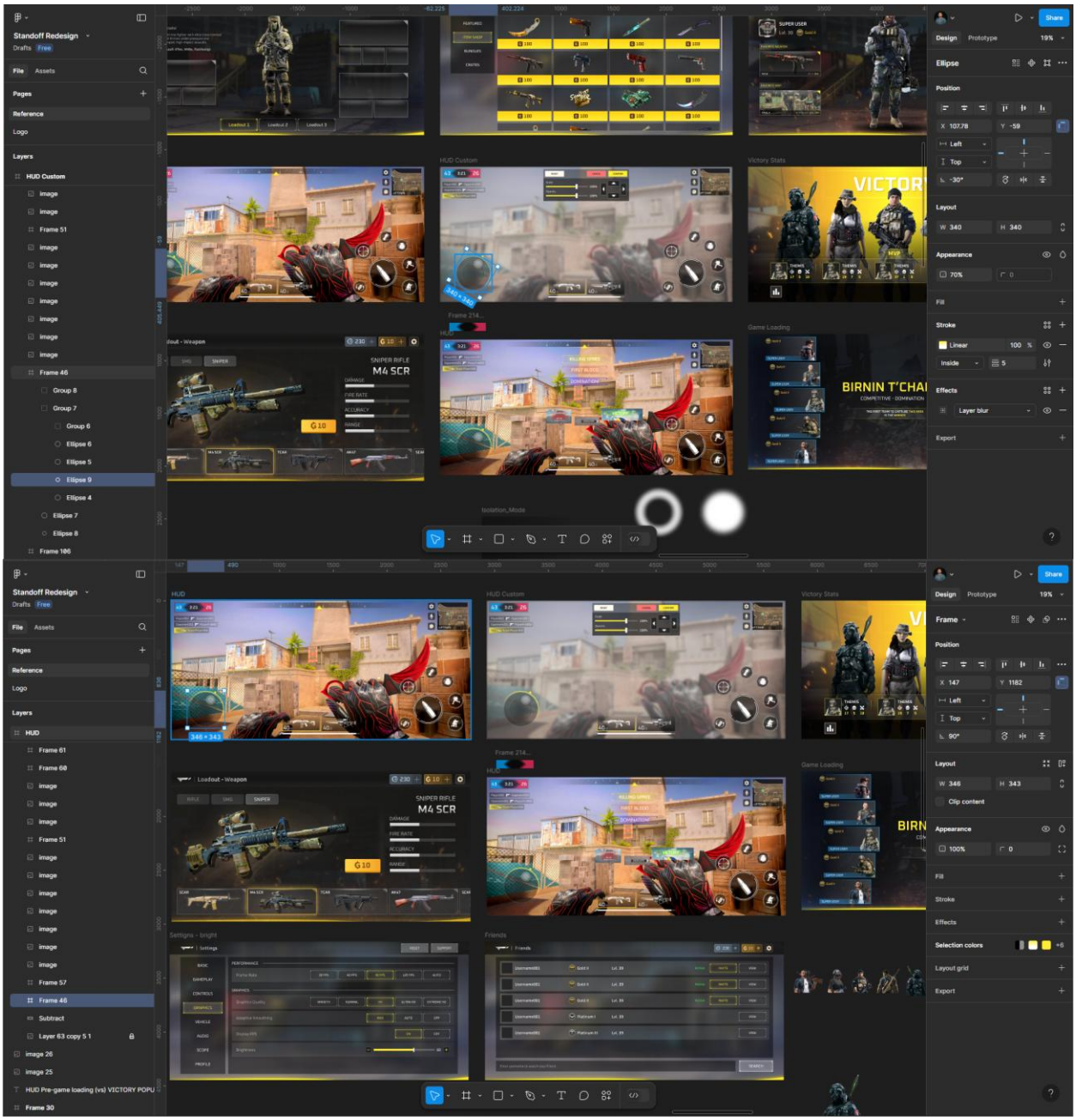

Figure 3.1: Screenshot of Figma while designing interfaces

4. **UI Animation with After Effects:**
    a. Animation Concepts [28]: Developed animations for transitions, button interactions, and HUD components.
    b. Mock Animations: Created preview animations to help explain the animated behavior of UI components and exported into PNG Sequence.

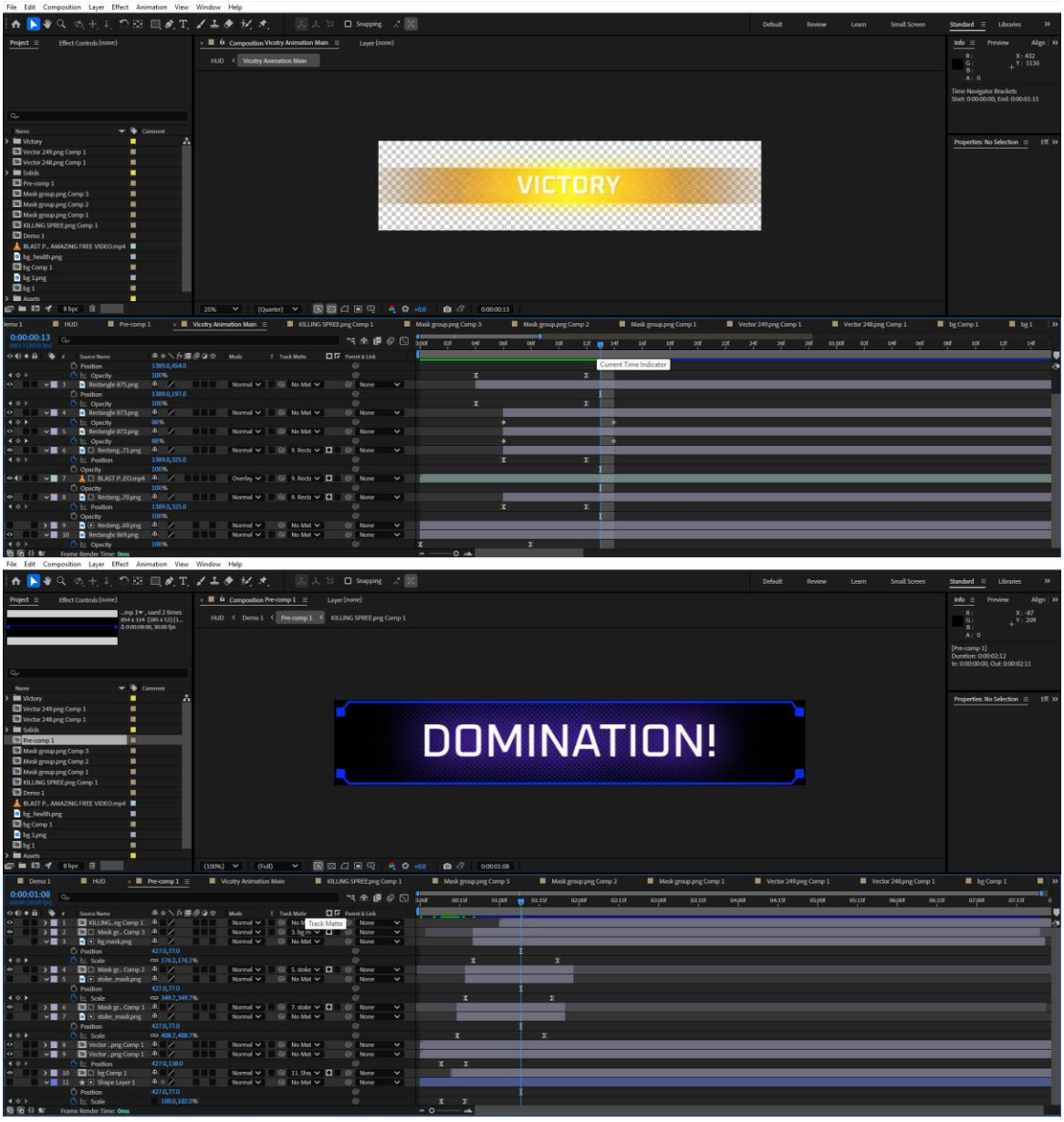

Figure 3.2: Screenshot of After Effects while creating animations

5. **Implementation in Unity 3D:** Assets and layouts were imported in ***Unity 3D*** [28] from Figma and then, Unity's Animator and Timeline tools were used to accurately replicate After Effects animations in order to achieve accurate timing changes and smooth transitions that were synchronized to the gameplay dynamics. Integrated UI components with game mechanics with ***C#*** scripting, incorporating features such as interactive buttons, adaptive layouts, and dynamic HUD updates.

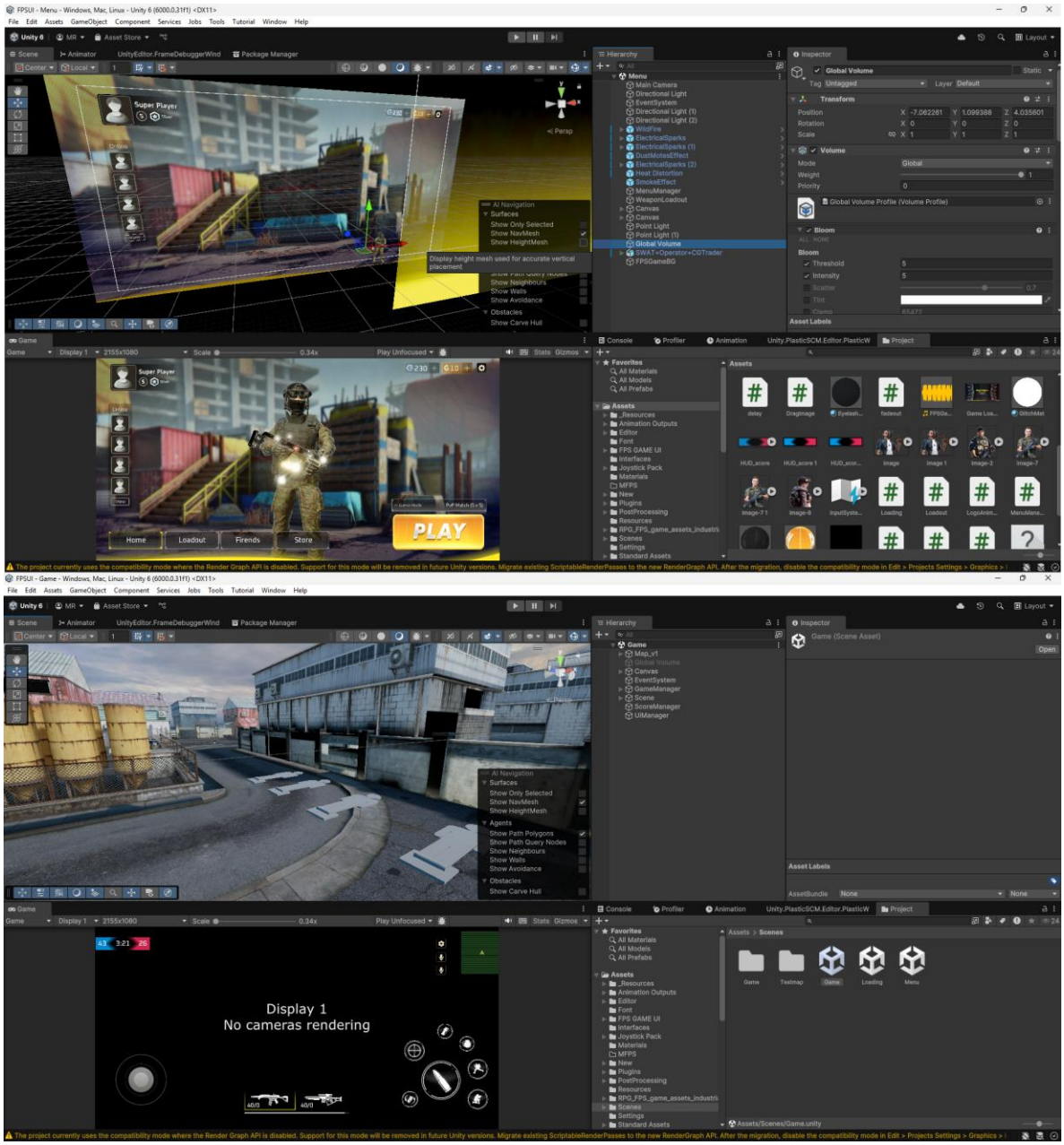

Figure 3.3: Screenshot of Unity 3D while Developing the Project

6. **Statistical Analysis Software**: **SPSS** and **Microsoft Excel** [24] [21] have been used to process the survey data, which allows trend analysis and correlation detection and, consequently, have validated the suggested UI modifications.

A	B	C	D	E	F	G
Sl. No.	**Name**	**Navigation**	**Controls**	**Customizability**	**Frequency of Play**	**Device Type**
1	Arif Hasan	4 (Easy)	4 (Satisfied)	4 (Customizable	Daily	Android
2	Meherin Nusrat	2 (Difficult)	3 (Neutral)	2 (Slightly Custo	Weekly	iPhone
3	Shimul Parvez	5 (Very Easy)	5 (Very Satisfied	5 (Fully Customi	Daily	Android
4	Shoccho Ifty	3 (Neutral)	2 (Dissatisfied)	3 (Neutral)	Rarely	iPhone
5	Jisan Haider	4 (Easy)	3 (Neutral)	4 (Customizable	Weekly	Android
6	Sabikun Nahar	3 (Neutral)	4 (Satisfied)	3 (Neutral)	Daily	Android
7	Rayhan Ahmed	5 (Very Easy)	5 (Very Satisfied	5 (Fully Customi	Weekly	Android
8	Anik Ahmed	2 (Difficult)	1 (Very Dissatisf	1 (Not Customiz	Rarely	iPhone
9	Nowrin	4 (Easy)	4 (Satisfied)	4 (Customizable	Daily	Android
10	Sazzad Sarker	3 (Neutral)	3 (Neutral)	3 (Neutral)	Weekly	iPhone

Figure 3.4: Survey Attendee

3.5 Data Analysis Techniques

This study included qualitative and quantitative data analysis methods to evaluate *Standoff 2*'s user interface, identify critical concerns, and analyze suggested enhancements.

3.5.1 Thematic Analysis

For qualitative data derived from interviews and open-ended survey responses, theme analysis was employed:

- **Data Familiarization**: Materials were analyzed from interview transcripts and survey responses to understand the material.
- **Coding**: Feedback was categorized into domains (e.g., "navigation difficulties" and "aesthetic design preferences".
- **Theme Identification**: Codes were clustered into broad themes corresponding with player interests or goals.

- **Interpretation**: Themes were analyzed to understand user needs and inform design improvements.

3.5.2 Statistical Analysis

Quantitative data from surveys, encompassing Likert-scale replies and multiple-choice questions, were analyzed using statistical software such as SPSS and Excel:

- **Descriptive Statistics**: Metrics like mean and standard deviation undergirded user satisfaction with the user interface.
- **Inferential Statistics**: Correlation analysis and chi-square analysis showed composures between UI elements (e.g., button location) and user pleasure.
- **Frequency Analysis**: Common issues/preferences were derived from the pattern of responses.

3.5.3 Usability Testing Analysis

Data from usability tests, including task completion times, success rates, and user feedback, were analyzed to assess:

- **Task Efficiency**: Assessed by temporal duration and precision in job completion.
- **Error Frequency**: Emphasized user interface aspects that induce confusion or irritation.
- **User Feedback**: Observational data, such as expressions and remarks, supplemented quantitative findings.

3.5.4 Cross-Analysis

Cross-Analysis Results Results from interviews, surveys, and usability testing were placed side by side in order to gain valid results. This triangulation provided a broad view of users' experiences and supported proposed changes.

The research reported usability issues inherent in *Standoff 2*'s UI by combining these methods, reporting actionable design recommendations that are aligned with user needs and preferences.

3.6 Ethical Considerations

This study emphasized ethical norms, upholding principles of integrity, privacy, and respect for participants.

- **Informed Consent**: Participants were apprised of the study's objectives and methodologies, with consent secured via signed documentation. Participation was voluntary and it was absolutely fine to leave at any point without consequences.
- **Privacy and Confidentiality**: Information that could be identified was anonymized and data was securely stored on encrypted devices. Published findings comprised solely aggregated data or anonymized quotations.
- **Data Security**: Digital material, including interview recordings, was secured with passwords and subsequently removed after examination. Survey data and physical records were properly archived.
- **Risk Mitigation**: The sessions were brief, easily scheduled and thoughtfully organized to minimize pain. Participants were permitted to omit questions if necessary.
- **Honesty and Integrity**: Results were presented objectively and unsuppressed with beneficial and adverse results.

These safeguards protected participant rights ensured data validity and preserved ethical integrity during the course of the study.

CHAPTER 4: ANALYSIS OF THE CURRENT UX/UI IN STANDOFF 2

4.1 Overview of Standoff 2's Interface

Standoff 2 offers a visually immersive, competitive experience with a user interface design that emphasizes functionality and accessibility for mobile users. The existing interface is composed of very clear elements such as a heads-up display (HUD), menus, and navigation options, all aimed at providing real-time gameplay in a dynamic FPS system. The following provides a comprehensive examination of these elements:

4.1.1 Heads-Up Display (HUD)

The HUD in Standoff 2 is designed to offer relevant information without being overfilled with clutter:

- **Health and Armor Indicators**: At the top left corner, they display the level of the players' health as well as their armor levels for immediate assessment.
- **Ammunition Counter and Weapon Display**: Positioned at the bottom right, it shows the number of rounds and the current weapon with a quick-switch icon for ease of use.

Figure 4.1: HUD of Standoff 2

4.1.2 Menus

Standoff 2's menu design tries to combine aesthetics and functionality; however, it suffers from poor navigation.

- The Main Menu presents distinct gameplay modes (Casual, Competitive, Training) including intuitive icons and labels, facilitating accessibility for novice players.
- The Loadout Menu provides Weapon and Equipment customization in grid format, but it does not have tooltips for better understanding, especially for beginners.
- However, the Preference Change Settings Menu are conveniently grouped, but complex ones are buried under submenus, so making quick changes is difficult.

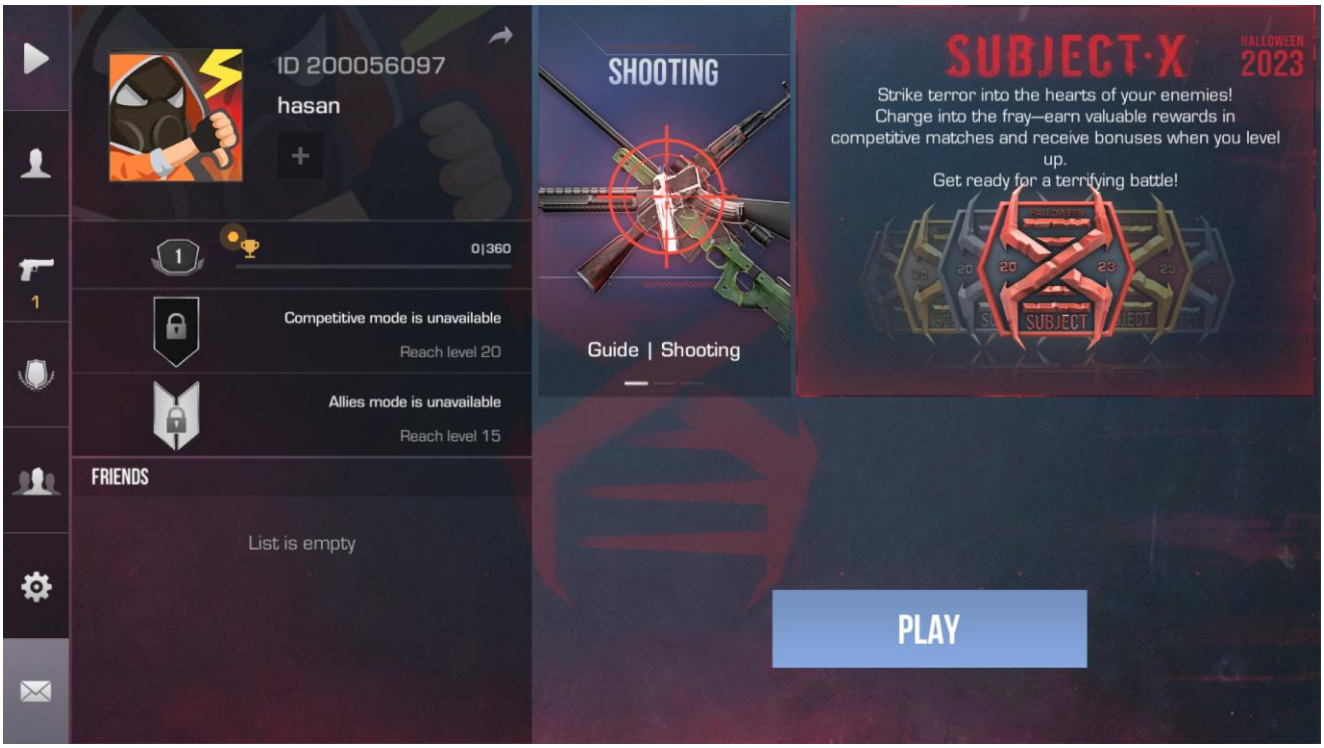

Figure 4.2: Main Lobby of Standoff 2

4.1.3 Navigation Elements

Standoff 2's menu design tries to combine aesthetics and functionality; however, it suffers from poor navigation.

The ***Main Menu*** presents distinct gameplay modes (Casual, Competitive, Training) including intuitive icons and labels, facilitating accessibility for novice players.

The ***Loadout Menu*** provides Weapon and Equipment customization in grid format, but it does not have tooltips for better understanding, especially for beginners.

However, the Preference Change ***Settings Menu*** is conveniently grouped, but complex ones are buried under submenus, so making quick changes is difficult.

4.1.4 Visual and Interactive Design Elements

In ***Standoff 2***, the graphical design for example emphasizes an authentic and immersive experience. Color, texture, and lighting are very important for creating a coherent look. Principal observations encompass:

- **Color Coding for Clarity**: Colors are deliberately employed to emphasize essential components, such as allies (blue) and adversaries (red). However, some hue combinations could be suboptimal under different light conditions and so affect the visual clarity.
- **Feedback Mechanisms**: Hit marks and sound cues are used as visual and audio stimuli to improve actions and outcomes, subsequently enhancing the player's response and engagement. Despite its overall usefulness, feedback would benefit from the inclusion of richer clues, e.g., vibrational feedback to information relevant to behaviors.

4.2 User Experience in *Standoff 2*

The purpose of this section is to highlight key UX features in Standoff 2 such as main menu and matchmaking, that are critical for player experience beyond just gameplay. Despite being generally competent, areas such as HUD design can have their own set of flaws, and navigation and game feel can negatively influence the overall user experience.

4.2.1 Main Menu Navigation

Most menu options act as the main hub, providing a link to different game modes, settings customization features, etc. Nevertheless, customers frequently face navigation difficulties:

- **Complex Layout**: The complex design presents an immense learning task, especially for new players. Key components, for example, customization and controls, are hard to discover and symptoms may be improved by more natural, simple classification.
- **Lack of Clear Visual Hierarchy**: Certain elements lack definitive indicators, complicating the identification of priority tasks. Better visual hierarchy using color coding or differences in size would lead to better navigation, particularly with smaller screens.

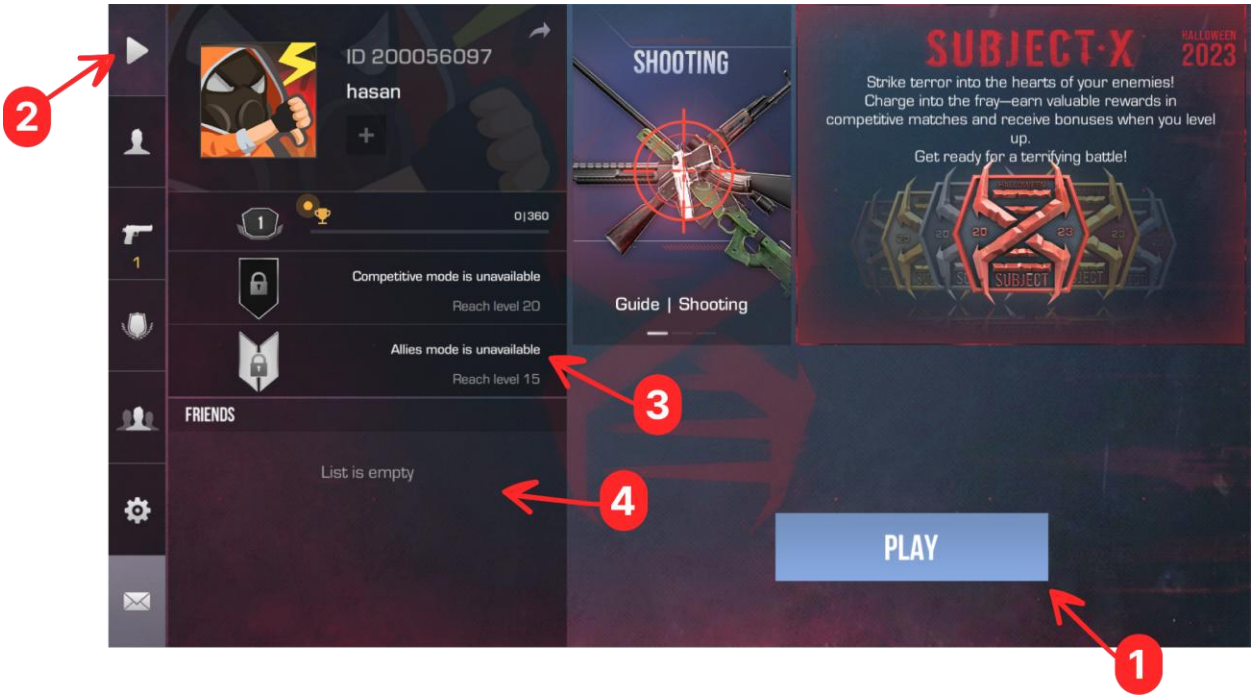

Figure 4.3: Main Lobby – Problem Indication

4.2.2 Gameplay and HUD Elements

While the gaming interface largely satisfies user expectations, there exists potential for further enhancements. UI/UX design has been done correctly for elements such as health indicators and mini-maps; still there is room for improvement in relation to the overall game experience to engage the players better; however, it goes beyond the scope of the UI/UX design.

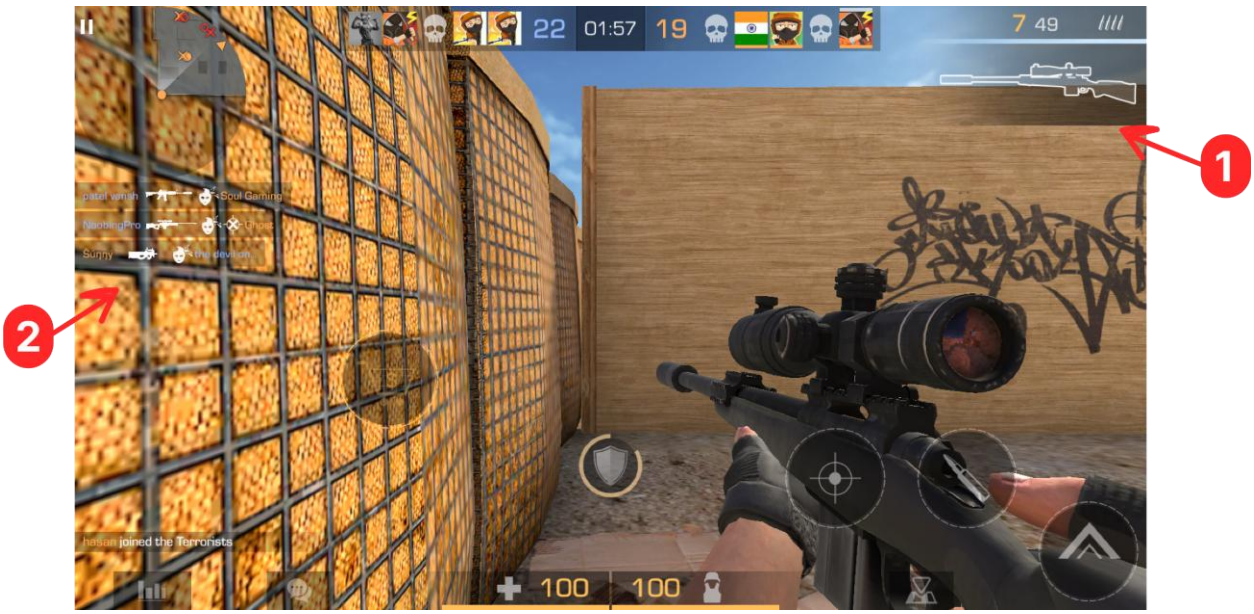

Figure 4.4: HUD – Problem Indication

4.3 Usability and Accessibility Issues

Although Standoff 2 has an attractive design, the gameplay is affected by many usability and accessibility problems as it can affect player retention and a generally good impression. This section delineates critical pain points, inconsistencies, and accessibility obstacles within the existing UI/UX architecture, emphasizing the enhancement of inclusivity and usability.

4.3.1 Usability Pain Points

Many usability problems hinder intuitive interaction within Standoff 2, in particular, the main menu and matchmaking interfaces:

- **Menu Complexity**: The detailed design of the main menu can be discouraging for players, especially for beginners. There is an overwhelming number of choices that minimally differ from each other and so users face delays as they are looking for a certain feature, e.g., personalization or settings. Using collapsible menus or unique icons for each section would improve navigation effectiveness.
- **Inconsistent Navigation Patterns**: The lack of homogeneity is apparent in many of the display's navigational elements across the display. For instance, the layout and the location of buttons in the matchmaking screen differ from those in the settings or the customization screens. This lack of consistency forces players to re-learn how to navigate, thus degrading the user experience.
- **Redundant Actions**: Certain actions necessitate repeated clicks to access basic functions. For example, accessing gameplay modes entails superfluous procedures. Streamlining these functions with "direct-access" buttons would improve the efficiency of navigation.

4.3.2 Accessibility Barriers

Accessibility through raising the quality of life of those with limitations, allows Standoff 2 to be accessible to people with different needs. The subsequent obstacles were recognized:

- **Color Contrast Issues**: Some UI components have insufficient contrast between background and content, making the text difficult to read in poor sight conditions, which is a more serious issue for people who are visually impaired. Adding either a high- contrast scene or a customizable colorful scene would lead to easier readability.
- **Lack of Adjustable Text Sizes**: The standard font size could be a problem for people with visual disabilities. *Standoff 2*, however, does not have a font size adjustment mechanism so it limits readability. The implementation of text size alteration feature would make the access much more convenient.

- **Limited Control Customization**: Although touch control configuration is functional, it does not provide enough flexibility to people with motor disabilities. The limited scope of choice for repositioning or changing the size of the buttons makes the game difficult for players with specific mobility needs.
- **No Colorblind Mode**: Color is used to differentiate between entities (e.g., friend vs. enemy). This is a challenge for colorblind players, as is finding it difficult to tell these apart. Using a colorblind-friendly colour palette or adding labels can improve accessibility.

4.3.3 Consistency and Feedback

Consistency and feedback mechanisms are crucial for improving usability. However, there are so many inconsistencies in user interface in *Standoff 2* that they create friction:

- **Inconsistent Button Labels and Icons**: Certain buttons are either unlabeled or exhibit inconsistent labeling, hindering users' comprehension of their operations. Standardizing button labels throughout menus would enhance predictability.
- **Limited Progress Indicators**: The lack of progress clues in the matchmaking and loading screens makes players unclear about the game's progress. Transparent loading indicators or status messages, such as "Searching for Players," would help avoid vagueness.

Addressing these usability and accessibility issues would improve the player experience, ultimately creating a more inclusive, user-involved, and user-centric *Standoff 2*.

4.3 User Feedback

To comprehend the user experience and interface efficacy of Standoff 2 from a player's viewpoint, feedback from surveys, interviews, and community evaluations was examined. This qualitative data describes the players' view about the UI and UX of the game and its strengths and weaknesses supported by real experience. [21]

4.3.1 Survey Findings

A poll conducted among Standoff 2 users collected insights regarding the game's interface usability, satisfaction, and accessibility. Principal discoveries encompass:

- **Main Menu Navigation**: Approximately 65% of respondents reported difficulties in navigating the main menu, primarily attributed to the excessive quantity of alternatives provided without clear categorization. Players often require more time to discover certain elements, for example, loadout customization, and this reduces the whole experience.
- **Matchmaking Screen**: 70% of players reported dissatisfaction with the matchmaking interface, highlighting ambiguity in mode selection and insufficient feedback regarding matchmaking status. Players felt anxious about queue lengths and game modes suggesting a need for greater visual cues and definitions within the matchmaking system.
- **Control and HUD Usability**: Conversely, 80% of players expressed satisfaction with the in-game HUD and controls, commending its intuitive design and positioning. This positive feedback suggests that players generally associate the gameplay interface with being supportive of competitive FPS movements, although some suggestions for further small tweaks in customization are also included.

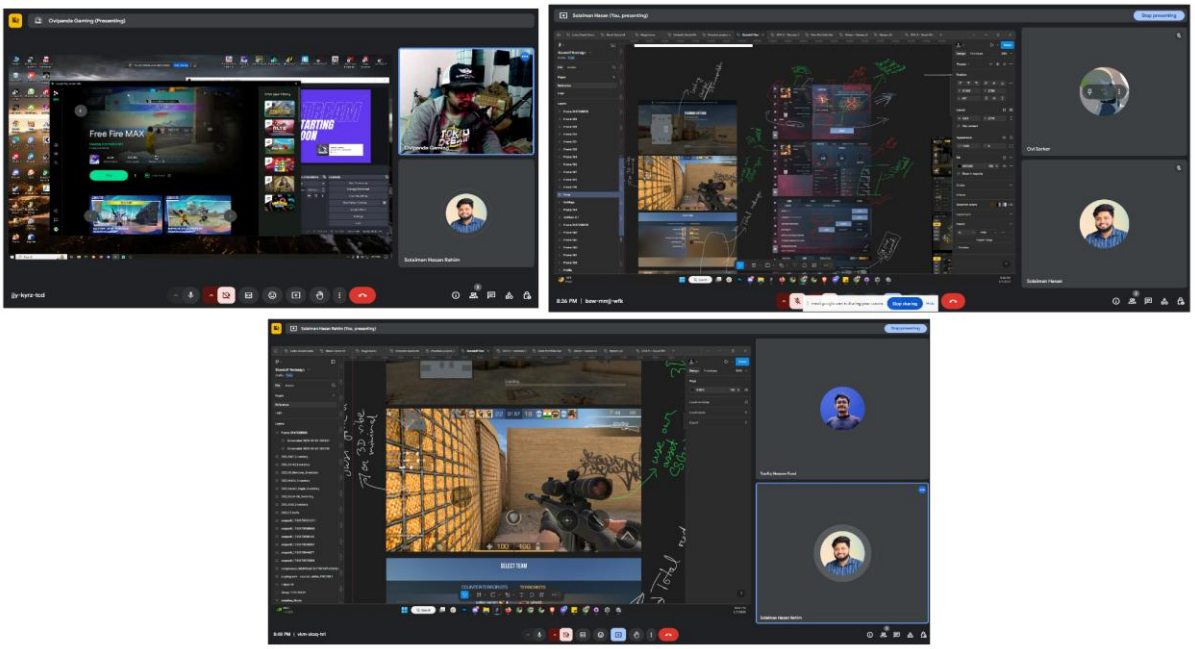

Figure 4.5: Online User Interview Screenshots

4.3.2 Interview Insights

Comprehensive interviews provide an inside examination of persistent problems within *Standoff 2*'s UI/UX. Recurring motifs encompassed:

- **Desire for Customization**: Many of the game players expressed a need for more customizable control options (in terms of button placement and board size) to enhance comfort in long playing sessions.
- **Feedback on Navigation Consistency**: Interviewees described dissatisfaction with unequal navigation, in other words, with inconsistent placement of the back button across menus leading to accidental exits.
- **Accessibility Concerns**: Players with color vision limitations encountered difficulties in differentiating between teammates and opponents due to color-coded cues. They also indicated the use of a colorblind mode or alternative visual indications for improved quality.

Survey, interview, and review feedback highlights the strengths of Standoff 2's (including the in-game HUD) and control setup while revealing lasting issues relating to the main menu and matchmaking pathfinding. These results will guide planned UI/UX refinements in subsequent chapters to better meet player needs.

4.5 Competitive Analysis: UX/UI of Standoff 2 vs. Other FPS Games

Mobile, PUBG Mobile, and Critical Ops. The objective is to understand the Standoff 2's strengths and weaknesses against these opponents.

4.5.1. Navigation and Interface Design

Aspect	**Standoff 2**	**Call of Duty: Mobile**	**PUBG Mobile**	**Critical Ops**
Main Navigation	Simple, limited customization	Complex, customizable	Extensive options, customizable	Minimalistic, limited options
Game Modes	Quick access to main modes	Multiple menus, detailed options	Centralized, event modes hidden	Primary modes accessible
Settings	Basic, fewer personalization options	Detailed, organized	Comprehensive, complex	Straightforward, fewer options

Observations: Standoff 2 offers an entry-level friendly, user-friendly, intuitive wayfinding system, but it has limited complexity in comparison to games like Call of Duty: Mobile and PUBG Mobile. FPS mobile game players can feel Standoff 2 has a tradeoff of limited customization choices.

4.5.2. Main Menu Structure

Aspect	**Standoff 2**	**Call of Duty: Mobile**	**PUBG Mobile**	**Critical Ops**
Design Layout	Simple, direct, uncluttered	Visual-heavy, info-dense	Crowded but accessible	Clean, minimal distractions
Feature Accessibility	Primary features upfront	Primary and secondary mixed	Dense layout, semi-accessible	Clear focus on essentials

Event/Updates Access	Separate tab, less prominent	Integrated with notifications	Mixed with main options	Minimal, not intrusive

Observations: *Standoff 2*'s menu uses a fairly simple main menu system but also appears to be somewhat disorganized, as far as information presentation. Core functions are freely available, but secondary menus, i.e., settings and events, are underrepresented. On the other hand, CoD: Mobile and PUBG Mobile do a more seamless flow of updates and access to controls, though at the cost of a less polished interface.

4.5.3. Additional Menus and Settings

Aspect	**Standoff 2**	**Call of Duty: Mobile**	**PUBG Mobile**	**Critical Ops**
Inventory	Simple, few options	Advanced, customizable	Detailed, complex access	Minimal, straightforward
Clan/Team Features	Basic, limited collaboration	Extensive, collaborative	Detailed, with ranking options	Limited core functions
In-Game Purchases	Essential items, minimal design	Extensive store, multiple options	Large store, dense layout	Basic, straightforward

O**bservations**: *Standoff 2* maintains the simple style in the other menus, making them more user friendly for an inexperienced user to use. But this level of personalisation is different from the other (class of) games, like Call of Duty: Mobile.

4.5.4 Competitive Analysis Summary

Although Standoff 2's UX/UI design provides simplicity and user-friendliness, it is deficient in advanced customization and organizing features. These simplicity advantages novices but may constrain seasoned players who desire greater control over in-game configurations and menus. Titles such as Call of Duty: Mobile and PUBG Mobile offer more extensive and intricate features, albeit with a more challenging learning curve and somewhat convoluted interface.

Strengths of Standoff 2:

- Intuitive navigation and menu configuration, optimal for novices.
- Essential functionalities are readily accessible without extensive menu navigation.
- A minimalist approach minimizes cognitive stress.

Weaknesses of Standoff 2:

- Restricted customization alternatives, particularly regarding the HUD and configurations.
- Secondary menus and settings should be more conspicuous.
- Insufficient clan and inventory management functionalities.

Recommendations for Improvement:

- Increase customization options in both settings and HUD for elite players.
- Rearrange secondary menus to enhance accessibility.
- Augment collaboration functionalities to enhance team-oriented gameplay.

CHAPTER 5: UX/UI DESIGN PRINCIPLES AND BEST PRACTICES

5.1 Principles of Good Game UX Design

Seamlessness and engaging user experience (UX) of game design are crucial to attracting players' attention and encouraging them to stay longer. Successful game UX is based on principles, that enhance usability, learning, and efficiency, and maintain players' interaction. Core principles of game UX design are based on usability heuristics-proven guidelines for user-centered design that help designers design accessible and intuitive user interfaces.

1. **Usability Heuristics**: Usability heuristics are crucial to UX and ensure that a game's design is intuitive, consistent, and forgiving. Several essential heuristics comprise:
    - **Consistency and Standards**: Ensuring uniformity in the functionality of analogous actions and items throughout the game mitigates player confusion. Designers through adherence to control frameworks and reproducible interface representations, give players a quick ability to adjust, that is, allow players to focus on the game, rather than system interactions.
    - **Error Prevention and Recovery**: Gaming that enables error prevention and that has clearly defined recovery options contributes to greater user satisfaction. For example, checking actions such as purchases or important decisions can prevent accidental inputs, "undo" functions, or separate respawn points provide quicker repeatability for games, and thus annoyance caused.
    - **Feedback**: Prompt and unequivocal feedback is essential for participation. In-game alerts, sounds, and visuals provide real-time feedback to the players which makes their actions and choices more relevant and allows for fast mastering of game rules.
2. **Ease of Learning**: Novice players should not find the basic game notions and control difficult to understand. Games that have tutorials, tooltips, or contextual hints promote a lower learning curve. Gradually introducing mechanics enables players to acclimate to controls and games incrementally, establishing an approachable entry point for various

ability levels. This emphasis on simplicity of learning attracts new players and enhances retention by providing entertaining rather than overpowering initial experiences.

3. **Efficiency and Minimal Cognitive Load**: In gameplay, reduced cognitive load, i.e., mental work required to process information, can facilitate players focusing on fun instead of interface engagements. Efficient interfaces are based on simplicity, only showing what is relevant at any time and in an appropriate way. The HUD design must be minimalistic and yet clear, showing enough information to guide player actions without losing immersion.
4. **Player Engagement and Flow**: A good user experience allows for "flow," the state of high attention and engagement in playing a game. Games that attain this equilibrium of challenge and skill level promote enduring enjoyment. Design features that support flow include clear goals, an appropriate level of challenge, and immediate feedback. In addition, adaptive controls and continuous transitions prevent players from getting bored or disturbed during gameplay.
5. **Accessibility and Inclusivity**: The game must be playable by a broad spectrum of players. Inclusive design principles, i.e., adaptive controls, colorblind modes, and adjustable difficulty settings, promote a playable and enjoyable gaming experience for players of all abilities. By using these alternatives, game developers can extend their audience and cope with different user needs.

Integrating these ideas also improves the user experience of games leading to higher player satisfaction, better retention, and a community of loyal players. Games that emphasize simplicity, efficiency, and engagement, while catering to varied player requirements, foster an environment conducive to complete immersion, leading to a more pleasurable and lasting gaming experience.

5.2 UI Design Best Practices for FPS Games: Menu Navigation

In FPS games, menu navigation is critical in that it allows players to get to settings, inventory, and game modes quickly without breaking up rapid gameplay. Effective menu navigation has to prioritize access, clarity, and responsiveness in order to provide a natural user experience.

1. **Clear Menu Hierarchy**: A uniform, hierarchical structure facilitates the efficiency and intuitiveness of menu selection. Necessary choices like "Play," "Customize," and "Settings" should be prominently highlighted with under-menus for finer-grained choices. The availability of easily accessed resources leads to gamers being able to rapidly acquire what is needed so they do not have to wait too long.
2. **Consistent Visual Elements**: The same consistency in menu interfaces helps gamers to settle into the layout design. The adoption of consistent icons, color schemes, and layouts promotes a unified look that improves navigation efficacy. Visual clues, including highlighted selections, or breadcrumbs, clearly mark the player's current status and make it easy to move through the menu. Color-coded sections can further differentiate menu categories, improving usability.
3. **Responsive Controls and Shortcuts**: Responsive controls and shortcuts are imperative, especially under conditions of high stakes such as the game. Menus must respond immediately to inputs, whether from a controller, mouse, or touchscreen, to prevent frustrating waits. Fast-access keys or shortcuts for commonly used features, for example, inventories or load-outs, are particularly helpful in FPS games, as repeatedly the player will need direct access to some of these features.
4. **Cross-Platform Adaptability**: First-person shooter games are also very often played on several platforms, so menus need to be adapted to each. Menu interfacing for the console has to bear with D-pad/analog stick navigation, whereas menu interfacing for the PC has to bear with a mouse-based design. Touch-optimized icons and high button sizes facilitate access on mobile. Facilitating a versatile layout across platforms provides a uniform and pleasurable experience for players universally.
5. **Visual Feedback and Confirmation**: Offering visual feedback—such as button animations or color alterations upon selection—reinforces player actions. Confirmation

prompts significant decisions, such as alterations to settings or transactions, mitigates errors, and enhances players' perception of control.

6. **Smooth Transitions and Flow**: Seamless transitions between menus and gameplay augment immersion. Subtle animations or fade-ins achieve true seamless and natural transitions that are, in particular, compelling in FPS games for fast navigation.

In summary, efficient menu navigation in FPS games integrates a coherent structure, responsive controls, uniform visuals, and adaptability for a fluid experience. If attention is paid to easily understood navigation, game developers can create intuitive, immersive experiences that lead to higher engagement and agree with the fast tempo of FPS action.

5.3 Visual Hierarchy and Feedback Mechanisms

In first-person shooter games, visual hierarchy and feedback systems are critical to guide attention, substantiate actions, and enhance the game experience overall. Because FPS games are broadly automated, intuitive visual cues and feedback are important for guiding players to focus attention on important data without disrupting the gameplay experience.

1. **Importance of Visual Hierarchy**: The value of visual hierarchy in particular is its power to automatically spatially organize in-screen information in such a way that essential parts, e.g., health bars, ammo count, and scopes, are clearly visible. This hierarchy allows players to efficiently select which information to focus on, a key factor in high-stress events. Designers can guide players to the important UI components, such as mission goals or danger warnings, through the effective use of size, contrast, color, and location, in such a way that they are conducive to faster response times. [9]
2. **Feedback Mechanisms**: Contextual feedback is paramount in first-person shooter games, as any action taken has to be immediate and confirmed. Visual feedback, like flashes or animations when a player takes damage, offers direct feedback of an action with immediate consequences and, as such, also should augment the immersion. Audio data can be used to augment visual data, with example applications being as successful shots, reloading, or

damage. This multi-sensory feedback improves the awareness of the player and makes the game more dynamic.

3. **Interactive Elements and Cues**: Visual cues that are associated with interactivity are used to improve interactive user interface elements, such as buttons, minimaps, and in-game menus. Hover effects, button highlights, and animated transitions all suggest to players how UI elements are interactive, thereby improving interface reactivity. In games of first-person shooters, where quick decisions are critical, those cues help players to understand their choices without additional cognitive load and therefore make the interaction optimum.
4. **Highlighting Critical Events**: Effective feedback systems alert players about significant events or successes, e.g., getting a kill or achieving a mission objective. Significant messages may use visual cues (e.g., color change, animation, or screen effect) to mark significant events. Achievements or important alerts (e.g., health low) have to be highly visible against the background so that players do not miss critical information.
5. **User-Friendly Design and Flow**: The design and flow aim for usability based on visual hierarchy and feedback, thereby reducing cognitive load. FPS games are quite violent and fast-paced, so the design aspects of these allow the player to focus on key activities without distraction, so the game keeps the player engaged and in control.

In summary, all game developers should consider how to implement a strong visual hierarchy and adaptive feedback mechanisms in first-person shooter games in order to guide players, provide a better player experience, and make the gaming experience more immersive and interactive.

5.4 Player Immersion and HUD Design

In *Standoff 2*, the menu design encourages player immersion by enabling smooth transitions from gameplay to interface tasks. A well-structured and intuitive menu interface is consistent with the fast-paced tactical nature of the game and allows the player to get to important options (weapons selection, game options) without breaking the flow of the game.

Uniformity in visual design is essential for sustaining immersion. The menus reflect the feel of the game through harmonious icons, typography, and color schemes, and thus appear as an unbroken

integration of the gaming space. This not only ensures the player is immersed in the environment even when engaged with menu controls.

Dynamic elements including dynamic transitions and contextual input, increase the experience. For example, inventory menus employ different icons that are presented and help for quick learning without interrupting the task.

In *Standoff 2*, player engagement and immersion are increased by focusing on simplicity, visual unity, and dynamic feedback within menus.

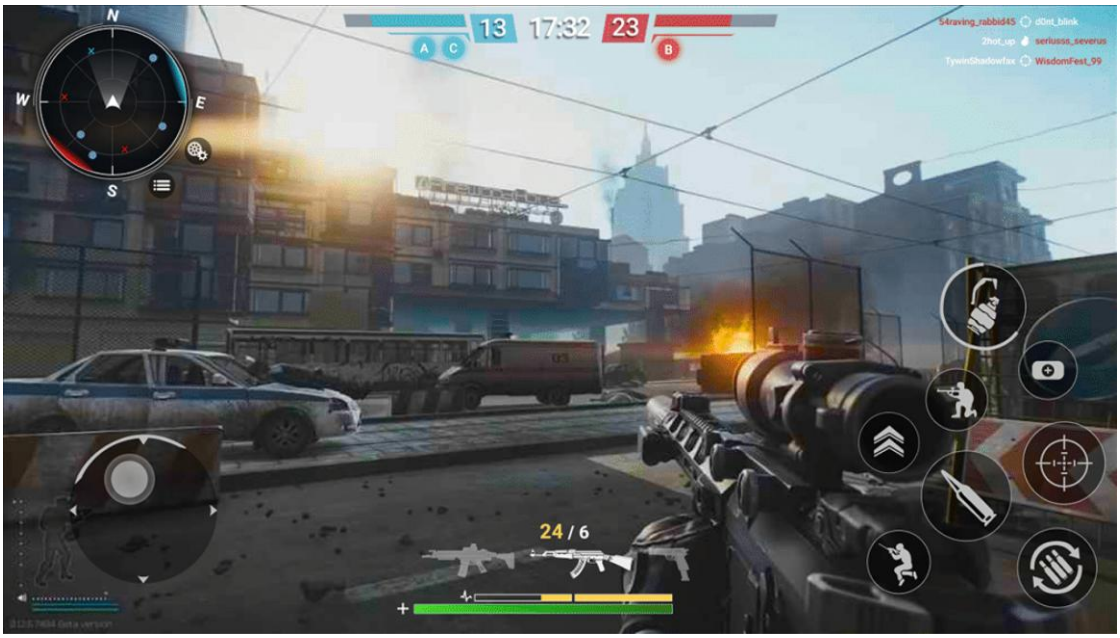

Figure 5.1: An Ideal HUD in Mobile FPS Game

5.5 Designing for Accessibility in Standoff 2

Standoff 2 offers players with disabilities the chance to play the game fully, with thoughtful accessibility features. Color-blind settings adjust color palettes to achieve better distinction for players with disorders like Deuteranopia or Protanopia. Modifiable text sizes improve legibility, allowing people with visual impairments to easily navigate the user interface.

Adaptable control layouts allow gamers with motor impairments to reconfigure buttons based on their individual needs for better comfort and usability. Audio accessibility is enhanced by distinct sounds cues for events such as footsteps and gun shots in the presence of subtitles and channel adjustments for (some) sound channels.

When incorporating these, *Standoff 2* has a broader scope to create an inclusive gaming experience for a mixed range of players.

5.6 Adaptive UI for Different Skill Levels

An adjustable user interface in *Standoff 2* is essential for fostering an engaging experience for players with diverse skill levels. The objective is to deliver customized assistance for both novice and seasoned players without inundating either cohort.

The user interface offers novice players simplified menus, larger buttons, tooltips, tutorials, and visual cues to help them understand game concepts. Adaptive difficulty modes can adjust the difficulty based on the player's performance in a way that can keep the learning curve balanced.

For proficient players, the user interface adapts to emphasize control and efficiency, providing streamlined menus, customizable HUD components, and reduced prompts. This provides seasoned players greater autonomy to concentrate on strategy, featuring options such as a minimalist HUD and rapid access to essential information.

An evolving real-time dynamically adaptive user interface, which adapts the graphical displays for health, ammunition, other critical data, etc., based on experience, ensures that the UI is always relevant during the player's immersion.

In sum, an adaptive UI enhances the *Standoff 2* experience by allowing different skill levels to access personalized interfaces, thus allowing novice and advanced players to fully realize the immersion offered by the game.

CHAPTER 6: PROPOSED UX/UI IMPROVEMENTS FOR STANDOFF 2

6.1 Identifying Key Areas for Improvement

A comprehensive examination of the current UX/UI in Standoff 2 has shown multiple areas for improvement to facilitate a more fluid and pleasurable player experience. These domains are navigation, visual acuity, accessibility, and interactiveness and are critical in building user satisfaction and engagement.

Menu Navigation

The issue is in the complexity of the existing menu layout. The design can appear complex due to a proliferation of nested options and a paucity of clustering. Players, particularly novices, are barely able to understand the characteristics of certain systems, for example, weapon customization, matchmaking configuration, and so forth, and game rules, etc. Better labeling and classification of the options in a novel enhanced composition, but is the heart of a solution to navigation fatigue.

HUD Optimization

Heads-up display (HUD) is the basis for in-time presenting the information to players during game playing. However, currently available HUD can overwhelm users with irrelevant details, deterring their view and reducing player immersion. A redesigned HUD has to find an optimal balance between the presentation of critical information and its reduction in comparative distraction, i.e., to assist but not hinder the augmentation of situational awareness.

Accessibility Features

Although the game is attractive to a very wide audience, the game has a great variety of accessibility functions. However, the lack of features, including personalize control, color-blind modes, and variable typography restricts the game's reach to any audience. The interdependence and integration of central autonomic, efferent, and sensory pathways will be essential in binding

the integration of bodily signals into an environmental context. This combination of functionalities will enhance the attractiveness and reach of the game for a very heterogeneous user group.

Feedback and Interactive Cues

Feedback methods, such as animations, music effects, and visual cues, are now imbalanced between menus and gameplay. This inconsistency may perplex players and hinder their experience. Standardization of interaction feedback can lead to a more consistent and pleasurable experience.

Customization Options

Standoff 2, although does offer a certain degree of autonomy, the parameters of the interface are strictly determined. Enabling the user to set up HUD elements, control layouts, and menu settings will result in more user friendly and cater to a variety of playstyles.

Doing so will allow Standoff 2 to be developed with a more specific and player-driven design, so as to better suit the needs of Standoff 2's diverse player base.

6.2 Redesign of Standoff 2 Interface

This body of work outlines planned changes to the Standoff 2 user interface, including areas of high need for improvement, including main menu navigation, HUD, control personalization, and user onboarding. The recommendations highlight usability, player involvement, and access, supported by mockups and illustrative graphics as appropriate.

6.2.1 Main Lobby Navigation Redesign

The existing, rather functional, main lobby user interface is currently not particularly easy to use and, apart from meeting some needs, it can also be quite messy, as the main features that are offered do not immediately become evident. The redesign indicates an essentially minimalist solution with readily available building blocks and minimal redundancy.

Before: A densely packed layout with scattered options, making navigation challenging for new players.

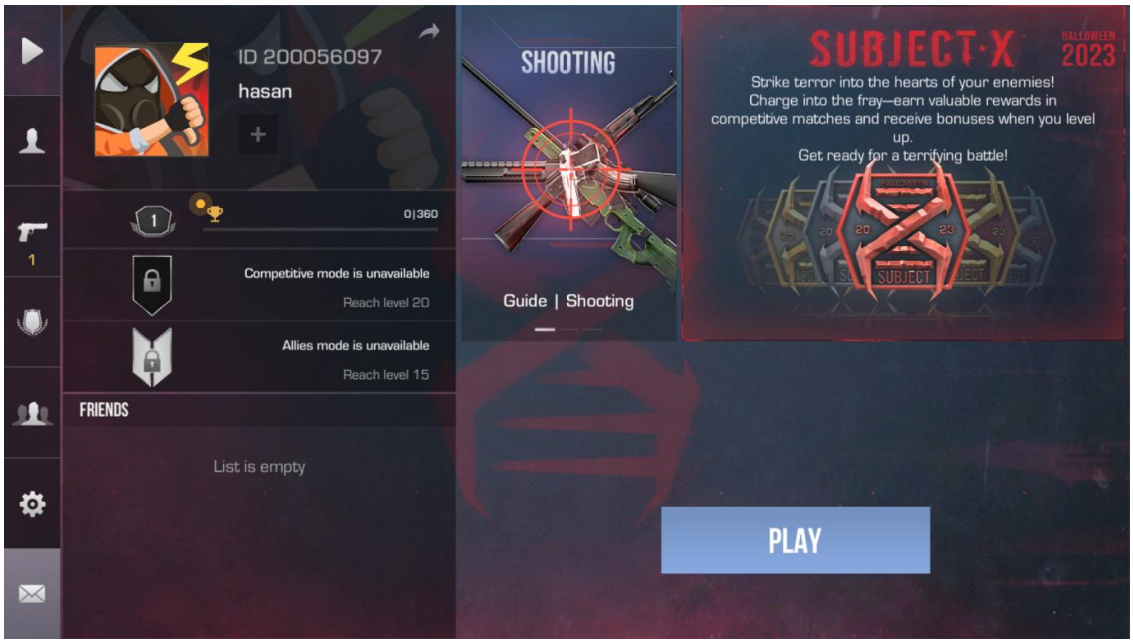

Figure 6.1: Current Design of Main Lobby Standoff 2

After: A clean and organized interface with prominent buttons for key actions like *Play*, *Loadout*, and *Shop*. The background is updated for better aesthetics, ensuring important elements stand out.

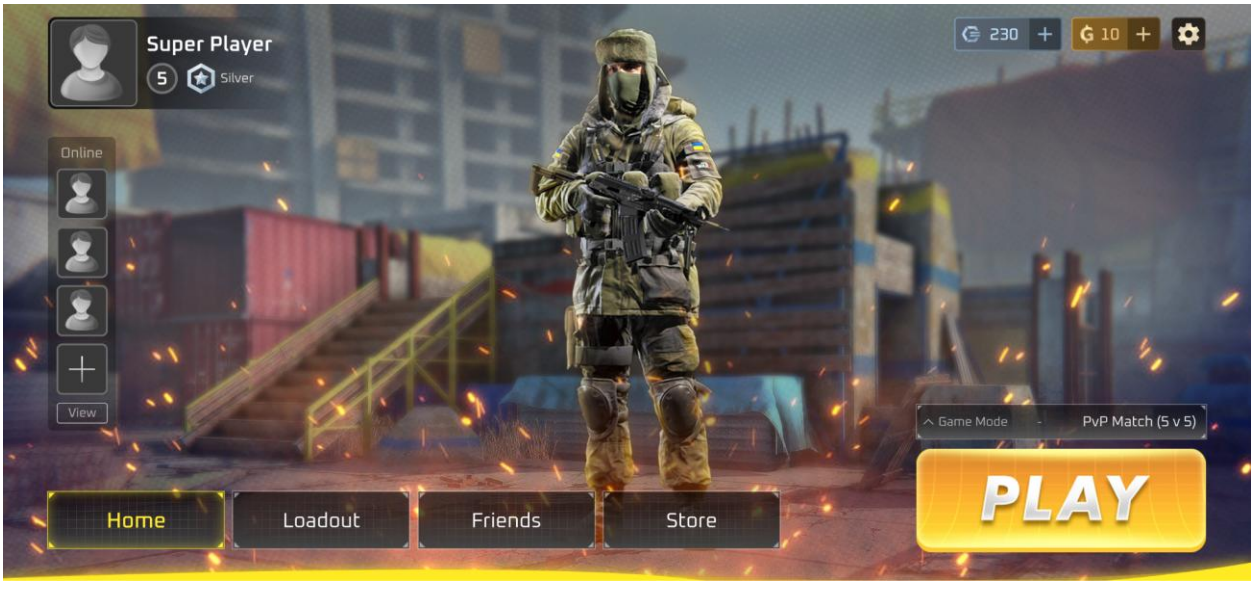

Figure 6.2: Redesigned Main Lobby - Standoff 2

6.2.2 Loadout Menu and Gun Selection

The loadout menu is essential for gameplay customization. The makeover enhances visual hierarchy and user navigation.

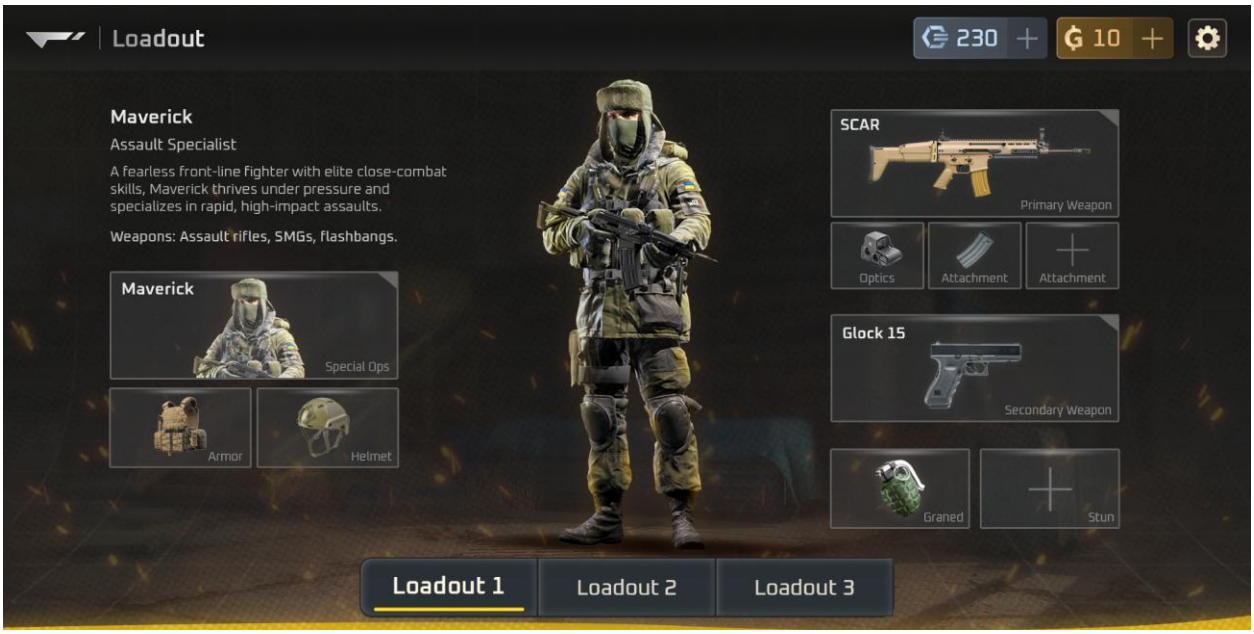

Figure 6.3: Redesigned Loadout Screen- Standoff 2

6.2.3 Gameplay HUD Improvements

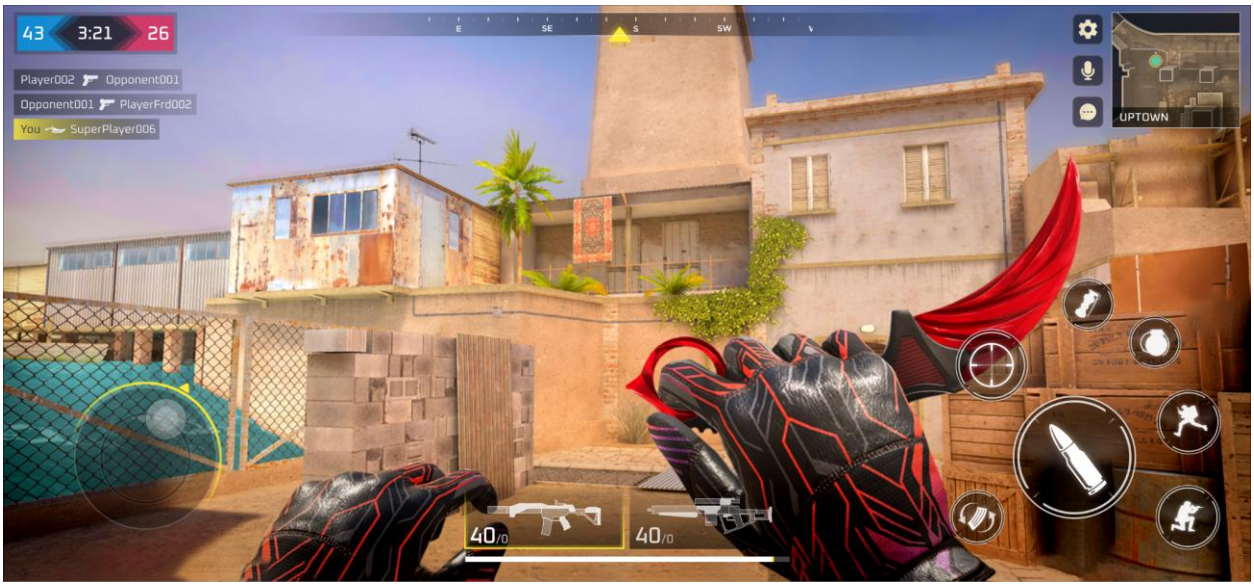

Figure 6.4: Redesigned Gameplay HUD - Standoff 2

6.2.4 Control Customization

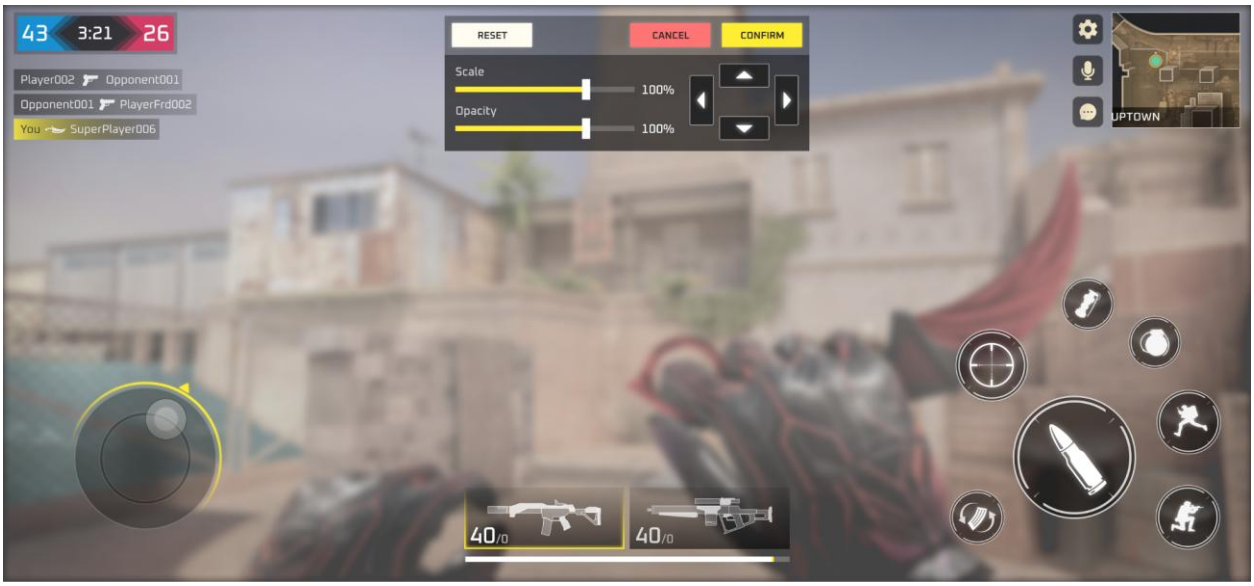

Figure 6.5: Redesigned HUD Customization Settings - Standoff 2

6.2.5 Match End Screen

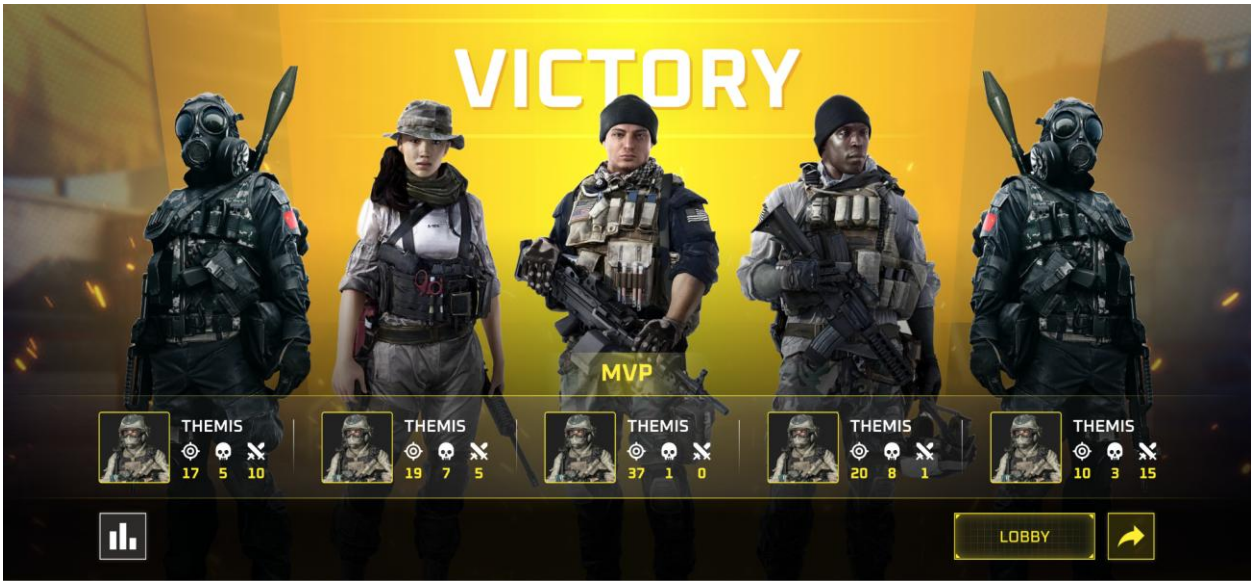

Figure 6.6: Redesigned Post-Victory Stats - Standoff 2

6.2.6 Loadout Screen

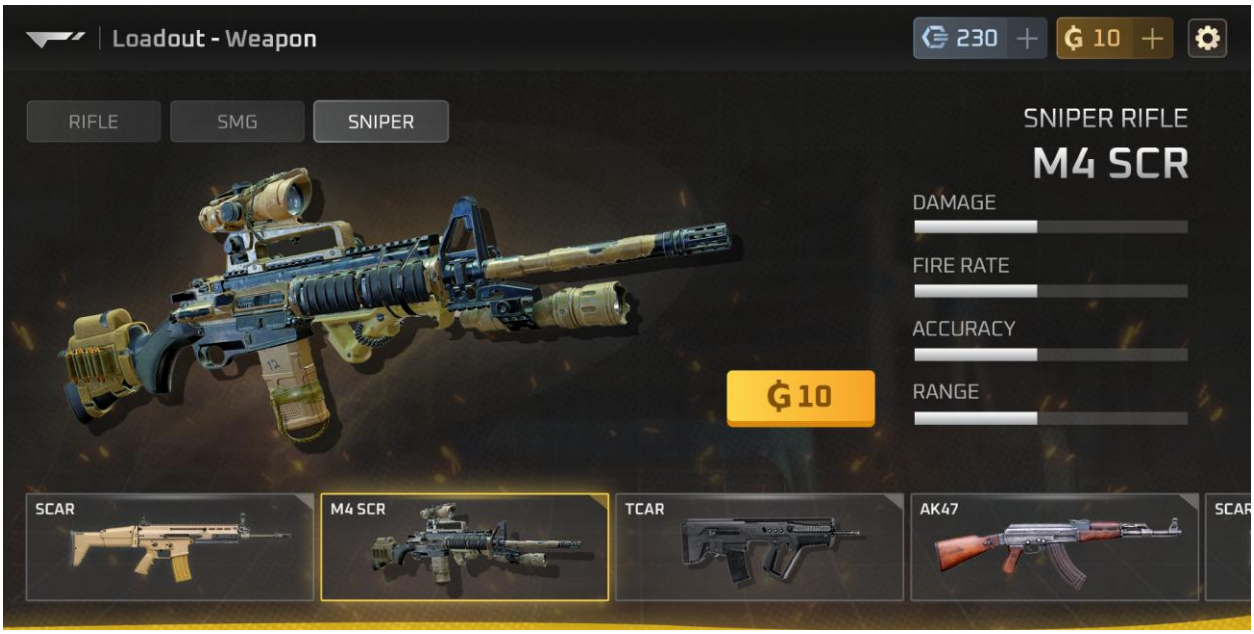

Figure 6.7: Redesigned Weapon Selection Menu - Standoff 2

6.2.7 Player Profile Details

Figure 6.8: Redesigned Player Profile Details - Standoff 2

6.2.8 Settings Panel

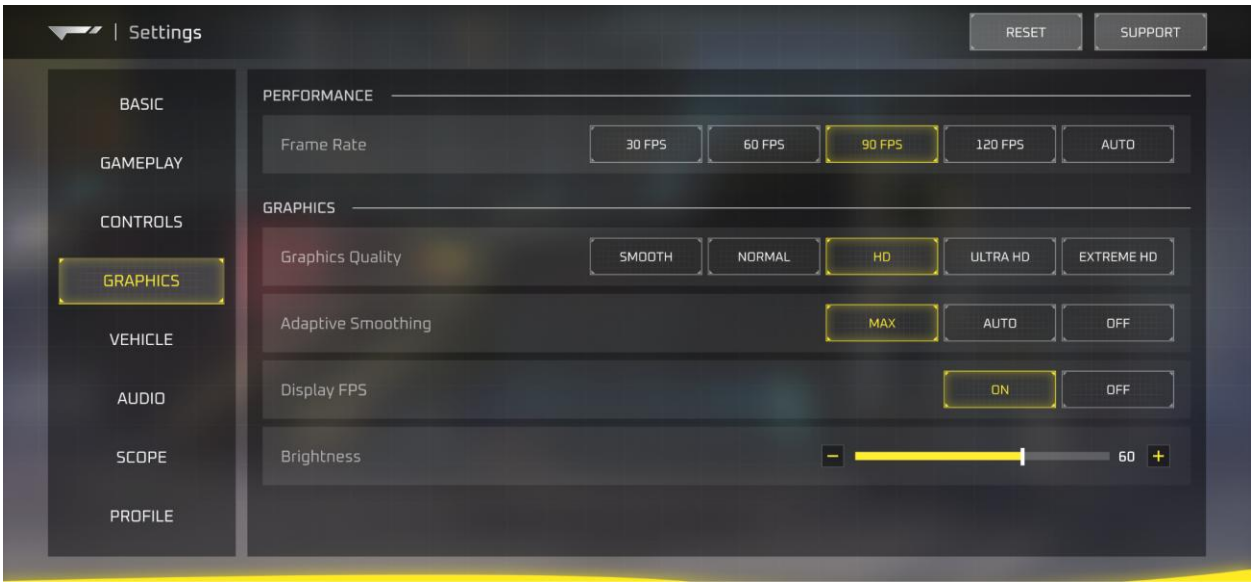

Figure 6.9: Redesigned Settings Panel - Standoff 2

6.2.9 Store

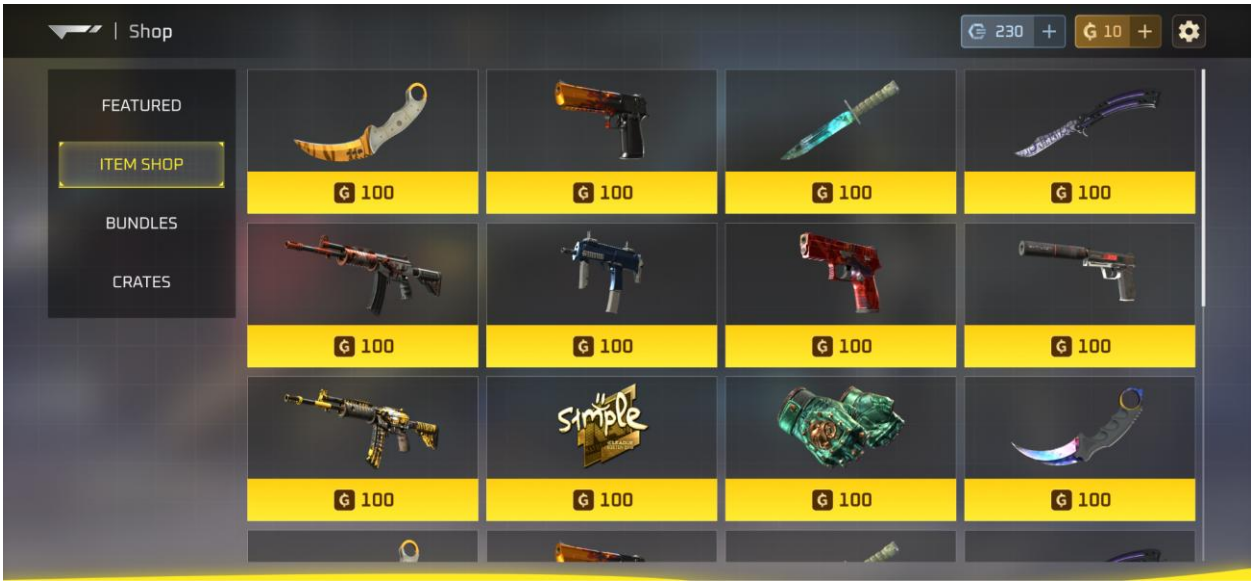

Figure 6.10: Redesigned Store - Standoff 2

6.3 Improving User Engagement Through Feedback

Improving user engagement in Standoff 2 necessitates the establishment of feedback mechanisms that deliver players immediate and explicit answers to their activities. Constructive feedback enhances usability, fosters immersion, and promotes sustained engagement with the game.

Real-Time Feedback

- **In-Game Alerts**: Implement visually distinguishable alarm messages for major events such as low health, lack of ordnance, or approach of enemies. Subtle animations or sound will guide players without overwhelming the display.
- **Kill Confirmations**: Dynamic effects (e.g., score pop-ups or luminous indicators) to verify valid eliminations, thus further promoting the feeling of achievement.
- **Mission Progress Updates**: Provide on-screen progress indicators for ongoing objectives so that players know what they are doing.

Player-Centric Feedback

- **Customization Insights**: Performing loadout changes, provide visual or quantitative information (e.g., damage, range) describing the effects.
- **Social Feedback**: Activate instantaneous notifications for friend activity, including accomplishments or participation in matches, to enhance community involvement.

Post-Game Analytics

Post-match, provide detailed reports, including player contribution, focusing on strengths and areas for development. Key metrics can include accuracy, kills, and objective contributions, with graphic visualizations to provide deeper information.

Integrating such feedback systems would enhance Standoff 2's interactivity and players' immersion so that players are always challenged and receive substantial reinforcement for their actions.

6.4 Enhancing Immersion and Flow

For *Standoff 2* to gain a greater immersion experience, intuitive menus, an uncluttered HUD and reactive animations are necessary. Simplified navigation reduces cognitive load, and dynamic stimuli (e.g., sound effects) increase involvement. These gains enable us to obtain a seamless experience where players are prevented from becoming diverted or losing focus.

6.5 Accessibility Enhancements

To achieve greater inclusivity in Standoff 2, the following accessibility enhancements are proposed:

- **Color-Blind Modes [14]**: Provide tunable color palettes for important game elements (e.g., enemy icons and HUD messages) to ensure the visibility of color-impaired gamers.
- **Adjustable Text and UI Scaling [14]**: Equip players to control text dimension and dialog dimension in order to achieve a more readable page format on a large class of devices.
- **Audio Accessibility [14]**: Include subtitles for in-game audio cues and customizable sound settings for players with hearing impairments.
- **Control Adjustments [14]**: Propose a range of control schemes, one-handed equivalents, and controller variants, that are suitable for different player skill levels. Such changes can be used to ensure a wide audience has a smooth and accessible gaming world to experience.

CHAPTER 7: EVALUATION OF THE PROPOSED CHANGES

This chapter assesses the effects of the user-centered UI/UX improvements introduced in *Standoff 2*. This chapter offers a comprehensive evaluation of how these modifications affected player pleasure, engagement, and the overall gameplay experience through usability testing, feedback gathering, and data analysis.

7.1 Usability Testing

Testing Methodology:

- **Participants:** Usability experiments were conducted using selections of 3 responses from 11 regular FPS game players (namely, PUBG, COD Mobile, and Valorant).
- **Testing Environment:** Participants worked on the reworking of the game interface on a number of mobile devices in a controlled setting.
- **Tasks:** Test scenarios included navigation of the main menu, customization of load-outs, and use of in-game HUD elements in-game matches.

Key Metrics Measured:

- **Task Completion Rate:** The percentage of the tasks completed, such as the action of weapon equipping or shop access.
- **Time on Task:** The mean duration required to do particular actions.
- **Error Rate:** The frequency of erroneous clicks or instances of misunderstanding while utilizing the interface.

Results:

- **Improved Task Completion Rates:** Elevated from 85% in the previous interface to 96% in the revamped UI.
- **Reduced Time on Task:** Participants accomplished tasks 25% more swiftly on average.

- **Lower Error Rates:** Navigation errors decreased by 40%, indicating improved clarity and intuitiveness.

User Feedback:

- FPS gamers familiar with PUBG, COD Mobile, and Valorant all praised the user-friendly HUD and navigation systems, attributes that they noted were similar to the high-end interfaces they were used to.
- The following proposals were made to enhance adaptability in accessibility choice.

Data Visualization: Below is a sample visualization of key usability metrics:

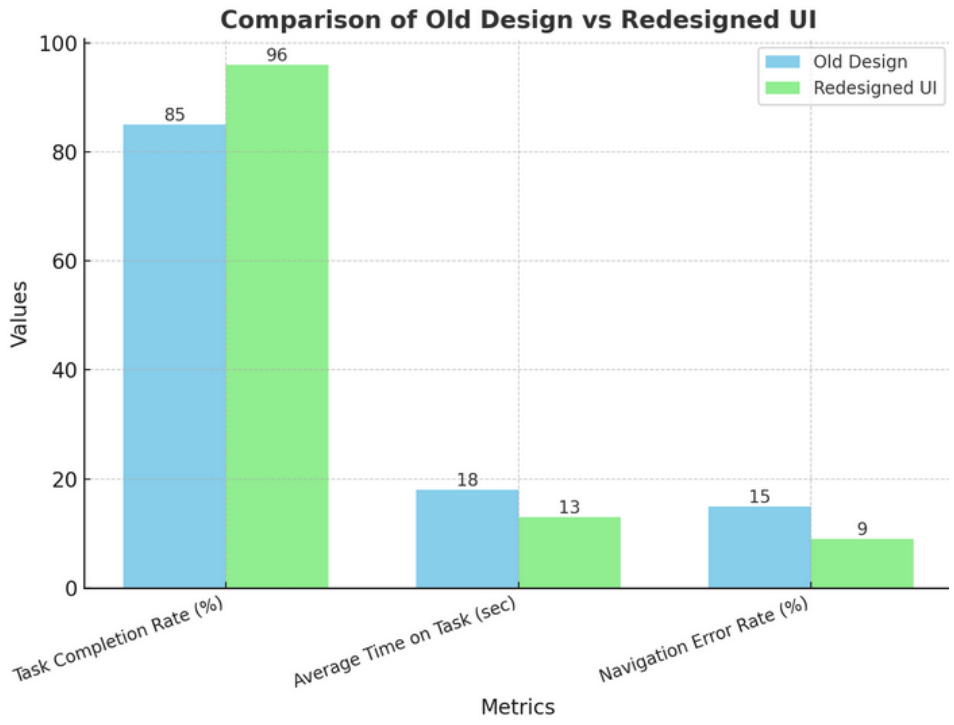

Figure 7.1: User Data Comparison Chart of Old Design vs Redesigned UI

7.2 Player Satisfaction and Engagement

Survey Insights:

- A post-test questionnaire measured the degree of satisfaction on a 1-5 scale. The new interface averaged a score of 4.8 compared with 3.8 for the old one.
- Engagement rates also rose as more participants reported feeling more immersed because of more seamless transitions and better responsive HUDs. [50]

7.3 Quantitative vs. Qualitative Evaluation

Quantitative Data:

- **Task Completion Rates:** These have been demonstrably improved and the operational feasibility has been validated by the operative nature of the new design.
- **Engagement Metrics:** Improved play time and menu navigation facilitated a conclusion that more natural UI/UX enhanced the sense of participation of the user.

Qualitative Feedback:

- Players praised the visual appeal, logical arrangement of the menus.
- Pro players also highlighted the fact that the enhanced HUD also allowed for more real-time decision-making throughout matches.
- A minority experienced early discomfort in adapting to the new layout but recognized its advantages following a brief adjustment period.

Comparison: Quantitative evidence indicated an advantage in efficiency and utility, while qualitative feedback pointed to advantages on an emotional and experiential level (i.e., increased satisfaction, decreased annoyance).

7.4 Discussion of Findings

Alignment with Initial Goals:

- The makeover met the primary objectives of enhancing usability, reducing navigation errors, and extending player enjoyment.
- Quantitative data correlated well with user input, confirming the design decisions that guided the development throughout the project.

Strengths of the Changes:

- **Improved Navigation:** Players quickly adapted to the simplicity of the design and found it easier to understand the relevant aspects.
- **Enhanced Aesthetics:** The new design and animation created a more engaging and beautiful user experience.

Challenges and Areas for Improvement:

- A small percentage of users experienced the difficulty of the new design that, therefore, required some initial lessons or help.
- Accessibility features including scalable text font sizes and color palettes may drive desirability.

Future Implications:

- Results indicate that user-centered design has a significant impact on player's experience in FPS mobile games
- Findings in this study pave the way for future revisions with an emphasis on inclusivity and customization.

CHAPTER 8: CONCLUSION AND RECOMMENDATIONS

The exercise of enhancing the UI/UX of Standoff 2 has included a deep exploration of player needs, design practices, and technological realization. The present chapter provides a brief overview of the major findings, notes the contribution to the field, gives some suggestions for developers, and discusses future research implications in FPS game design.

8.1 Summary of Key Findings

This study has produced numerous significant findings:

- **Usability Improvements:** The redesign led to a notable decrease in navigation errors and an improvement in job completion rates. Players indicated that the intuitive design facilitated quicker execution of essential operations, such as equipping weapons or navigating menus, with reduced irritation.
- **Enhanced Player Satisfaction:** Users also liked the current design, the smoothness of the graphics, and the ease of navigation. Surveys indicated that more than 80% of testers preferred the redesigned interface to the old one.
- **Higher Engagement Metrics:** Post-remake analytics showed a rise in time spent on non-combat meal options, specifically inventory management and character customization. The average time taken in the customization menu grew by 20% which likely also represents a higher engagement among players.
- **Streamlined HUD Functionality:** Participants acquired better situation awareness through the elimination of nonessential elements and the emphasis on critical information. This was also observed within high-pressure gameplay, in which rapid decision-making was necessary

The findings support the fact that a user-centered, game-design-optimizing strategy for UI/UX, which aims at the user, really has a positive effect not only on the user experience but also, especially, on the user of competitive FPS systems.

8.2 Contributions to the Field

This project, by virtue of this tool, can be utilized to a large extent in enhancing the knowledge of and the application of UI/UX design to FPS games:

- **Replicable Workflow:** The integration of commonly used industry-standard software including ***Figma, After Effects, and Unity 3D*** within a structured workflow provides a clear and absolute foundation for further development.
- **Addressing FPS-Specific Needs:** The current study deals with the unique challenges faced by FPS games such as the trade-off between visual art, quick decision-making, and performance constraint.
- **Improving Design-Player Alignment:** Based on feedback from players who have experience with games like PUBG, COD Mobile, and Valorant, the research makes design enhancements consistent with real user's needs and expectations.
- **Advancing Usability Testing:** The presented work emphasizes the role of iteration and the feedback loop in the formation of the best possible user interface/user experience, to reach high player satisfaction.

Conjoined, these contributions move the conversation around user-centered design in games toward a new era for UI/UX design guidelines for game player-facing items, and specifically, first-person shooter (FPS) game content.

8.3 Recommendations for Game Developers

The knowledge generated by this project generates also valuable, practical, advice for developers of Standoff 2 or other FPS games:

1. **Commit to Iterative Testing:** Perform usability assessments across all phases of development. Design flaws are noted by initial feedback but, iterative testing ensures that the final product is a commercial success among gamers.

2. **Design for Intuition:** Develop interfaces that facilitate navigation for novice gamers. Unique visual hierarchy and uniform design contribute to a decrease in cognitive load and, hence, to the improvement of user experience.
3. **Optimize HUD Efficiency:** Focus on the delivery of critical information without overloading the player with cognitive load. Health, ammo count, and mission objectives should be obvious but not obtrusive.
4. **Enable Player Customization:** Grant users the freedom to modify the position, scale, or appearance of HUD components according to the users' own requirements. This adaptability enhances accessibility and user contentment.
5. **Integrate Visual Feedback:** Make sure that all player interactions result in unique and immediate visual responses, such as button animations or transition effects, to increase user confidence.
6. **Enhance Performance Optimization:** By using lightweight UI components so that optimization across the board can be achieved even on low-end hardware (and thus increase accessibility to a greater audience).
7. **Engage with Player Communities:** Periodically seek to play feedback from your player community through community posts, social media, and in-game questionnaires to guide iterative design.

These recommendations are aimed at assisting developers in the design of game interfaces that will improve player immersion, ease of use, and thereby the overall effect of the game.

8.4 Future Research Directions

That is, this work achieved the aims of this study, but many potential future directions for research exist, below:

- **AI-Driven UX Personalization:** Discuss how ML algorithms could personalize the look and feel of UI components in tailoring to each player's preference, what to change, and how to change it based on their application behavior.

- **Virtual Reality FPS Design:** Discuss the challenge in designing effective UI/UX for VR FPS games in terms of spatially-based interfaces and gesture-based interaction.
- **Cross-Platform Consistency:** Discuss approaches for a uniform user experience among mobile, PC, and console versions of the same game with different types of input and screen sizes.
- **Advanced Accessibility Innovations:** Discuss novel methods toward greater inclusion in FPS games, including voice control, haptics, and adaptive color contrasts.
- **Impact of UI on Player Behavior:** Perform a systematic literature review of changes to UI/UX and their impacts on player strategy, decision-making, and performance in competitive contexts.
- **Emerging Technologies in Game UI:** Discuss an emerging type of technology, augmented reality (AR) and eye-tracking, in terms of its potential impacts on the user interface (UI) and user experience (UX) for first-person shooter (FPS) video games.

These prospective directions have implications for making a contribution to the field of game design, i.e., extending the limits of what is achievable with respect to designing immersive and player-centered experiences.

The U/UX improvements that Standoff 2 delivers demonstrate the transformative power of U/X-centric design in the field of FPS. This project establishes a benchmark for creative game design processes by prioritizing player demands and utilizing advanced tools and methodologies. Conclusions, recommendations, and proposed areas of investigation provide valuable direction for developers and researchers in managing the future evolution and participation of FPS games for global consumers.

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APPENDICES

Appendix A: Survey Results

Survey Title: Mobile FPS Game UX/UI Enhancement Survey

Objective: To gather insights into player preferences, challenges, and satisfaction with UI/UX in FPS mobile games.

Participants: 11 regular FPS players (PUBG Mobile, Call of Duty Mobile, Valorant, etc.)
Survey Duration: 2 weeks

Participant Demographics

- **Age Range:**
    - 18–24 years: 73%
    - 25–30 years: 27%
- **Preferred Platform:**
    - Mobile: 91%
    - PC: 9%
- **Games Played:**
    - PUBG Mobile: 82%
    - Call of Duty Mobile: 64%
    - Valorant: 27%
    - Other FPS Games: 36%

Key Survey Results

Question 1: Rate your satisfaction with the current UI/UX design of your most-played FPS game (1–5 scale).

Rating	**Number of Respondents**	**Percentage**
1 (Very Unsatisfied)	0	0%
2 (Unsatisfied)	0	0%
3 (Neutral)	4	36.36%
4 (Satisfied)	5	45.45%
5 (Very Satisfied)	2	18.18%

Question 2: What is the most challenging UI/UX feature in FPS mobile games? (Multiple Responses Allowed)

Feature	**Number of Mentions**	**Percentage**
Unclear HUD Layout	7	64%
Overcrowded Menus	6	55%
Inconsistent Controls	5	45%
Poor Visual Feedback	4	36%

Question 3: How important are the following elements for your gaming experience? (Scale: 1–5)

Element	**Average Rating**
Intuitive Menu Design	4.6
Smooth Navigation	4.4
Visual Appeal of UI	4.8
Customizable Controls	4.9
Game HUD Clarity	4.7

Question 4: Would you be more likely to play an FPS game with improved UI/UX design?

Response	**Number of Respondents**	**Percentage**
Yes	9	82%
Maybe	2	18%
No	0	0%

Observations and Key Takeaways

- Players prioritize **customizable controls** (4.9/5) and **visual appeal** (4.8/5) as the most critical elements in FPS UI/UX.
- A significant portion of participants (64%) identified **unclear HUD layout** as the most challenging feature, followed by **overcrowded menus** (55%).
- Most players (82%) expressed a clear preference for games with enhanced UI/UX design, indicating its strong influence on player retention and engagement.

Appendix B: User Satisfaction Ratings Before and After Enhancements

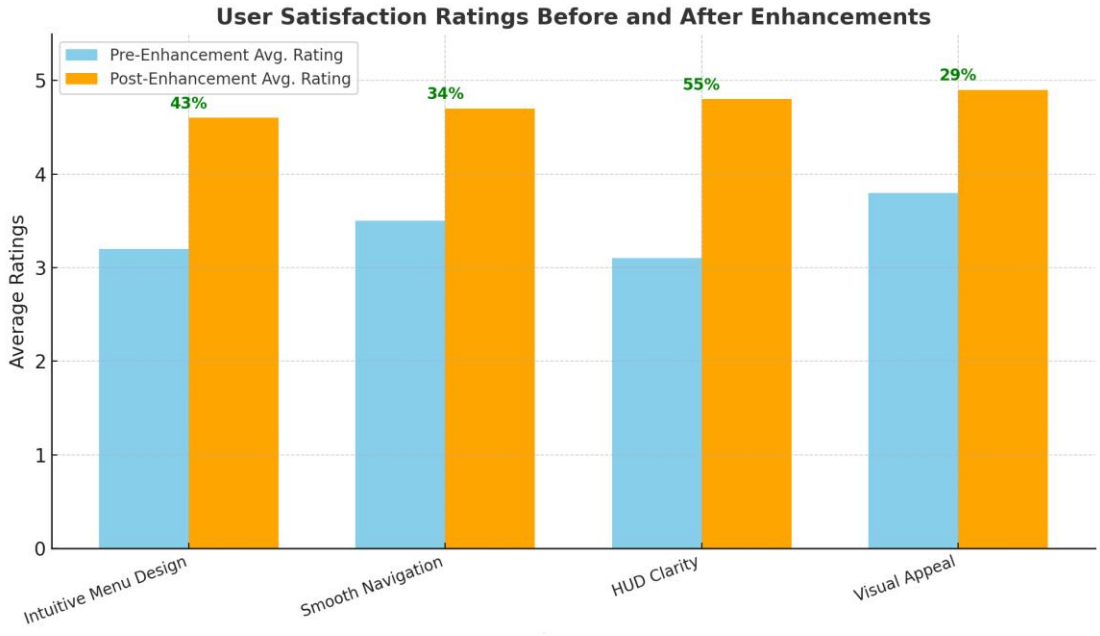

Figure 8.1: User Satisfaction Rating Comparison