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| Abbreviations | |
|---|---|
| CBT | Cognitive Behavioral Therapy |
| DSS | Decision Support System |
| SAMF | Self-Assessment and Monitoring Framework |
| UI | User Interface |
| UX | User Experience |
| NPC | Non-Playable Character |

# Executive Summary

D2.3: UX Documentation, provides a comprehensive overview of the User Experience (UX) design process for the SMILE OKP. The SMILE OKP integrates a Serious Game, a Companion App, and a Self-Assessment and Monitoring Framework (SAMF), all grounded in Cognitive Behavioral Therapy (CBT) principles.

The UX design focuses on delivering an engaging, intuitive, and inclusive experience that addresses the unique needs of the target audience while aligning with the project's goals. A user-centered approach was employed throughout, involving stakeholders, young users, educators, and mental health professionals through workshops, focus groups, and iterative testing to ensure relevance and usability.

Key highlights of the deliverable include:

- UX Design Principles: The design emphasizes user engagement through gamification, accessibility for a diverse audience, and integration of psychological alignment with CBT techniques to support cognitive restructuring and emotional regulation.
- User Interface (UI) Components: A clean, cyberpunk-inspired game aesthetic creates an immersive experience while adhering to core design principles such as consistency, visual hierarchy, and interactivity. Thoughtful UI elements ensure seamless navigation across the Serious Game and Companion App.
- User Journey Mapping: The user journey is broken into key stages—Awareness, Onboarding, Engagement, Progression, Retention, and Advocacy—outlining user interactions, emotions, and opportunities for improvement at each phase.
- Gameplay Flow: The Serious Game combines storytelling, tasks, and mini-games with regular touchpoints to the Companion App for questionnaires and reflections. Rewards and progression systems keep users engaged while facilitating therapeutic learning.
- The SMILE Companion App complements the Serious Game by enabling users to answer questionnaires, record diary videos, and manage account preferences. Its intuitive design, inspired by apps like Duolingo, ensures a consistent and user-friendly experience across iOS and Android platforms. Additionally, the Clinician Web Application allows administrators to monitor user progress and assign new activities.

In conclusion, the UX design of the SMILE platform delivers an innovative, accessible, and effective tool for supporting mental health through gamified learning. Moving forward, the design will undergo further validation and refinement through Living Labs testing to incorporate user feedback and enhance usability. This deliverable marks a significant milestone in the development of the SMILE platform, providing a foundation for future iterations and ensuring its impact in promoting mental well-being among young individuals.

# 1. Introduction

The SMILE Project focuses on enhancing mental health support for young individuals aged 10 to 24 through the integration of innovative digital tools and gamified experiences. With funding from the Horizon Europe Programme under Grant Agreement No. 101080923, the project aims to develop a OKP that combines a Serious Game, a Companion Application, and a Self-Assessment and Monitoring Framework (SAMF). Each component is carefully designed to promote emotional resilience, cognitive flexibility, and mental well-being by incorporating principles from cognitive-behavioral therapy (CBT).

The design process has been guided by key principles:

- **Engagement**: Through gamification, the platform captures the attention and interest of young users, motivating them to participate actively in mental health practices.

- **Accessibility**: A simplified and intuitive user interface ensures the platform is easy to navigate for users with varying technical skills and cognitive abilities.

- **Psychological Integration**: Incorporating principles from CBT directly into the user experience promotes therapeutic benefits in every interaction.


This deliverable, D2.3, provides comprehensive documentation of the user experience (UX) design underpinning the SMILE OKP, described in D5.1. The UX design process employs user-centered and co-creation methodologies, ensuring that the needs and preferences of the target demographic are prioritized. This deliverable serves as a testament to the project's commitment to innovation in mental health support, providing a foundation for future research, development, and application in this critical field..

# 2. Methodology

The UX design methodology for the SMILE platform follows a structured, iterative approach based on the principles of co-creation and user-centered design. The process involves multiple stages:

1. **Stakeholder Engagement and Requirement Gathering**:

   - Conducted workshops, focus groups, and surveys to understand the expectations of young users, educators, and mental health professionals.

   - Incorporated diverse perspectives to ensure the platform's relevance and inclusivity.

2. **Persona Development and User Journey Mapping**:

   - Developed user personas representing different age groups and mental health needs.

   - Mapped user journeys to identify pain points and design opportunities within the SMILE platform.

3. **Prototyping and Testing**:

   - Iteratively refined designs based on usability testing with participants from the target demographic.

4. **Gamification and Psychological Alignment**:

   - Integrated game mechanics, such as challenges, levels, and rewards, to sustain user engagement.

   - Aligned UX design with CBT principles to promote therapeutic outcomes through interaction.

5. **Accessibility and Inclusivity**:

   - Ensured compliance with accessibility standards, making the platform usable for individuals with varying abilities and technical literacy.

   - Adapted design elements to suit a wide age range and diverse cultural backgrounds.

6. **Final Validation and Iteration**:

   - Conducted comprehensive testing to validate the final design against user expectations and project objectives.

   - Addressed feedback to optimize the platform's usability and effectiveness.

# 3.  User Experience Design overview

## 3.1 Introduction to UX Design

User experience (UX) design for games targeted at individuals aged 10 to 24 involves creating intuitive, engaging, and adaptive experiences that cater to diverse cognitive and emotional development stages. At its core, UX design in games prioritizes the user's interaction flow, ensuring that the interface, controls, and feedback systems align with the player's needs and expectations. For younger audiences, design elements emphasize simplicity, vibrant aesthetics, and rewarding feedback loops to foster exploration and learning. Meanwhile, for older players, the focus shifts to dynamic challenges, personalized storytelling, and immersive mechanics that resonate with their growing cognitive and emotional complexity. By leveraging user-centered design principles and incorporating feedback from diverse player demographics, game designers create environments that are both entertaining and impactful, promoting accessibility, inclusivity, and engagement. This approach is especially critical for fostering resilience and social-emotional learning, key themes in modern educational and serious games.

The User Experience design of the SMILE platform plays a critical role in ensuring that the digital tools created under the project are both engaging and effective for young people managing mental health challenges. The SMILE OKP integrates a Serious Game, an Awareness App, and a Self-Assessment and Monitoring Framework, each of which requires a well-designed user interface to support users in navigating and interacting with the platform seamlessly.

The UX design process has been guided by a user-centered approach using the co-creation process, ensuring that the needs, preferences, and behaviors of the target audience are at the forefront of all design decisions. The goal of the UX design is to create an environment where users can easily engage with the platform's tools and resources, while fostering emotional well-being, self-reflection, and cognitive restructuring. By integrating principles of cognitive-behavioral therapy (CBT) into the user interface (UI), the platform encourages users to challenge negative thought patterns and develop resilience in a supportive and interactive manner.

The primary objectives of the UX design in SMILE are:

1. **Engagement**: To keep users motivated and immersed through gamified elements and interactive tasks that promote learning and behavioral change.

2. **Accessibility**: To ensure the platform is easy to use and navigate for a wide range of users, including those with varying levels of technical literacy or potential disabilities.

3. **Consistency**: To maintain a uniform design language across all modules, providing users with a cohesive experience as they move between the Serious Game, Companion App, and other tools.

4. **Psychological Alignment**: To integrate psychological principles, such as cognitive restructuring and emotional regulation, directly into the design, ensuring that the interface itself contributes to users' mental health journeys.

## 3.2 UX Design principles

The User Experience (UX) design of the SMILE platform is structured around core principles that ensure the platform is accessible, engaging, and aligned with psychological goals to support young users in managing their mental health. These principles emphasize a user-centric approach, gamification for motivation, accessibility across devices, and adherence to cognitive-behavioral therapy (CBT) frameworks. Together, these design principles create an environment where users can comfortably and effectively engage with mental health resources, build resilience, and achieve meaningful behavioral change.

**User-Centric Experience**

At the core of SMILE's UX design is a commitment to creating a user-centric experience that reflects the needs, preferences, and behaviors of the primary user group: young people. Designing with young users in mind means focusing on simplicity, intuitive navigation, and an engaging visual layout that resonates with their expectations. This approach involves ongoing testing and iteration based on direct feedback from target users. Input from focus groups and usability testing ensures that features are both relevant and meaningful to the audience. Additionally, SMILE's user-centric design seeks to minimize the potential for frustration, providing clear and logical pathways for users to access different areas of the platform, such as the Serious Game, Awareness App, or Self-Assessment tools. By keeping the experience user-centric, SMILE creates a space where young users feel both empowered and supported in their mental health journey.

**Engagement through Gamification** [1]

Gamification is central to SMILE's approach to user engagement, utilizing game mechanics to motivate users and make the experience enjoyable. Gamified elements, including points, levels, and challenges, foster a sense of progress and accomplishment, helping to maintain user motivation over time. Each interactive task or scenario within the platform's Serious Game is designed to keep users actively involved in learning CBT techniques and building resilience. By completing levels, overcoming challenges, and earning rewards, users engage with the content in a dynamic and immersive way. This structured progression, coupled with the rewards system, not only enhances enjoyment but also reinforces the learning and application of mental health skills. Gamification encourages sustained interaction, making it more likely that users will return to the platform and continue engaging with its content, ultimately benefiting from the therapeutic effects of prolonged use.

**Psychological Alignment with CBT**

The SMILE platform's UX design aligns closely with principles from cognitive-behavioral therapy (CBT), grounding user interactions in techniques that foster self-reflection and cognitive restructuring. Each interaction is crafted to support young users in recognizing, challenging, and re-framing negative thoughts. For example:

- Cognitive Restructuring: Users are encouraged to identify negative automatic thoughts within game scenarios and replace them with healthier alternatives. The UX design supports this process by prompting users with questions that guide them in evaluating their thoughts and reactions.
- Behavioral Activation: Interactive tasks help users confront anxiety-inducing scenarios in a controlled, safe environment. For example, the Serious Game might place the user in a social setting where they learn to manage social anxiety. These tasks are presented in a way that rewards gradual exposure, encouraging users to face rather than avoid challenging situations.
- Emotional Regulation: The UX design incorporates self-assessment tools that allow users to monitor their emotional responses and track their progress. Reflective prompts and visual feedback help users build awareness of their emotions, reinforcing mindfulness practices and emotional self-regulation.

Incorporating CBT principles into the UX design provides a meaningful structure that encourages users to build and practice mental health skills. This alignment ensures that the platform is not just a digital tool but an interactive therapeutic space, empowering young people to develop resilience, challenge cognitive distortions, and manage their mental health in a constructive and lasting way.

### 3.3 UI and Interaction Design

The User Interface (UI) and interaction design of the SMILE OKP are crucial in creating an intuitive, engaging, and seamless experience for young users. The design focuses on delivering a cohesive, user-friendly interface that aligns with the platform's goals of supporting mental health, cognitive restructuring, and resilience-building through gamified and interactive experiences. By employing well-thought-out UI elements and interactive components, SMILE ensures that users can navigate the platform easily, stay engaged, and make meaningful connections with the mental health strategies embedded in the content.

# 4. User Interface Design Elements

The SMILE OKP's User Interface (UI) design is structured to create a seamless, intuitive, and engaging experience for young users. This section highlights the specific UI components that support ease of navigation, an aesthetically pleasing visual design, and smooth interaction. Together, these elements ensure that users can confidently navigate through different modules and tasks, staying focused on their mental health journey without unnecessary distractions or complications.

### 4.1 Overview of UI Elements

The SMILE platform's UI elements are carefully chosen and structured to offer an intuitive, visually appealing environment that is accessible across all modules (Serious Game, Awareness App, Self-Assessment and Monitoring Framework). Key UI elements include:

- Consistent Layouts: Each module within the platform adheres to a consistent layout that reduces cognitive load and allows users to predict the location of essential features, such as menus, settings, and interaction points. This consistency enables users to feel comfortable and familiar with the platform as they explore different modules and scenarios.
- Clean and Minimalist Design: The design emphasizes simplicity, ensuring that only essential information and options are displayed to users at any given time. The minimalist layout avoids clutter, which is particularly important in a mental health platform where an overwhelming interface can detract from the supportive experience. This approach helps users focus on their tasks and minimizes distractions.
- Visual Cues and Feedback: Icons, colors, and animations serve as visual cues, guiding users through tasks, scenarios, and choices. For example, positive feedback (such as a checkmark or confetti animation) is displayed when a task is completed, providing a sense of accomplishment and reinforcing user motivation. Color-coded feedback (e.g., green for success, red for error) helps users understand their progress and any adjustments they need to make.
- Progress Indicators: A progress bar or level indicator is displayed to give users a sense of how far they have progressed in a given task or module. This transparency supports user engagement and provides reassurance, helping users see their ongoing achievements within the Serious Game and self-assessment activities.

### 4.2 Interactive Elements

Interactive elements are central to creating an engaging experience that encourages active participation and meaningful reflection. SMILE's interaction design uses elements like buttons, sliders, and drop-downs to facilitate smooth navigation, simplify choices, and reinforce cognitive-behavioral principles.

- Buttons: The platform employs clearly labeled, visually distinct buttons for primary actions like "Next," "Submit," and "Select Option." These buttons are easy to locate and consistent in color and size, helping users understand where to click to progress through tasks. Larger, color-coded buttons are used for key actions to make interactions straightforward, especially for younger users who may require a more intuitive interface.

- Sliders and Rating Scales: Sliders allow users to report on feelings, self-assessment scores, or confidence levels, creating a visual and tactile way to express their current state. These interactive scales are visually engaging and encourage users to reflect on their emotions and behaviors in a quantifiable way. For example, a slider might allow users to indicate their anxiety level on a scale, reinforcing awareness of emotional shifts.

- Drop-Down Menus: Drop-down options simplify complex choices, providing users with pre-defined answers to select from, such as emotional responses (e.g., happy, neutral, anxious) or thought alternatives in cognitive restructuring exercises. This element streamlines decision-making and prevents choice overload, making it easier for users to progress through tasks without hesitation.

- Interactive Prompts and Guided Choices: Prompts appear on-screen to guide users through CBT-based exercises, helping them reframe negative thoughts or make constructive choices. For example, users might be prompted with a thought, such as "I'm not good at this," followed by multiple-choice options that represent different ways to reframe the thought. These guided choices allow users to learn and practice CBT techniques interactively, making the learning process feel natural.

- Progressive Disclosure: To keep users from feeling overwhelmed, information is gradually revealed only when needed, a design technique known as progressive disclosure. For example, additional instructions or options might only appear once a task is started. This method prevents cognitive overload and allows users to focus on one step at a time, making the experience more manageable and less intimidating.

## 4.3 Enhancing User Engagement

The UI and interaction design work together to enhance user engagement by ensuring that every interaction on the platform feels purposeful and satisfying. Thoughtfully placed UI elements, combined with engaging interactive components, encourage users to continue exploring, learning, and reflecting on their journey. By offering clear visual cues, reinforcing positive actions, and using interactive elements that align with psychological principles, the SMILE platform fosters an environment where users can effectively engage with mental health tools and practice CBT techniques in an enjoyable, supportive way.

# 5.  User Journey Mapping

## 5.1 Introduction to User Journey Mapping

User journey mapping is a critical tool for understanding and enhancing the experiences of young individuals as they navigate the project's serious games and gamified scenarios. By mapping the journey, designers can visualize how users interact with the game's modules, such as engaging with characters, overcoming challenges like the "dragon trap," or learning through cognitive behavioral therapy (CBT)-inspired tasks. This process involves identifying key touchpoints—like initial onboarding, completing quests, or receiving feedback—while assessing users' emotions, challenges, and behavioral responses at each stage. For instance, mapping the journey of a user navigating the town square helps uncover potential pain points in understanding thought-behavior-emotion connections and highlights opportunities to create seamless transitions and rewarding feedback loops. By iteratively refining these journeys, the SMILE project ensures its gamified solutions are intuitive, engaging, and aligned with the psychological goals of resilience-building and mental health support.

In SMILE serious game, we use user journey mapping for finding how to structure the various scenarios/modules inside the serious game as well as interaction with the companion app to get useful inputs at important times in the CBT based gameplay presented in the serious game.

An example of for identifying and categorization of user journey for SMILE game is as follows: Persona: John, a 15-year-old first-time player.

- Scenario: User logs in, customizes their avatar, and starts Level 1.
- Stages: Login → Customization → Tutorial → First Level.
- Touchpoints: User interface, character selection, tutorial guidance.
- Emotions: Excitement (login), Confusion (customization options), Frustration (tutorial difficulty).
- Opportunities: Simplify onboarding, add tips, and ensure smoother transitions.

This will be further described in WP2 and WP8 deliverables.

## 5.2 Stages of User Journey Mapping

User journey stages outline the step-by-step process users experience when interacting with a product, service, or system. Each stage offers insights into user behaviors, emotions, and touchpoints, enabling designers to create more seamless and engaging experiences. For the SMILE project, which integrates serious games and CBT-inspired scenarios for mental health support, these stages are tailored to reflect user interactions within gamified learning environments.

- **1. Awareness**

**Description:**

The awareness stage is where potential users first learn about the SMILE project and its offerings. For a serious game aimed at mental health, this stage focuses on capturing attention and conveying the value proposition effectively.

**Key User Actions:**

- Discovering the game through teachers, schools, or healthcare providers.

- Visiting the project's website or app store listing.

- Watching trailers or tutorials to understand the game's purpose.

**Touchpoints:**

- Digital ads, social media posts, and awareness campaigns.

- Word-of-mouth recommendations or educational outreach.

- Game descriptions on platforms like app stores or the project's website.

**Challenges:**

- Overcoming user skepticism about serious games.

- Communicating the dual focus on entertainment and mental health effectively.

**Opportunities:**

- Use visually appealing, relatable materials to resonate with the target demographic (10–24 years).

- Collaborate with schools, healthcare professionals, and influencers to promote credibility and reach.


- **2. Onboarding**

**Description:**

Onboarding begins once the user decides to engage with the SMILE game. This stage ensures they understand the game mechanics, objectives, and navigation.

**Key User Actions:**

- Downloading and installing the game or accessing the platform.

- Creating a profile or customizing an avatar.

- Exploring tutorials to understand gameplay and mechanics.

**Touchpoints:**

- Login screens, tutorials, and the first interactive experience.

- Interface elements like tooltips, character guides, or introductory narratives.

**Challenges:**

- Balancing information overload with simplicity.

- Catering to diverse user profiles, including younger players who may need more guidance.

**Opportunities:**

- Use gamified tutorials, such as playful interactions with NPCs, to engage users while teaching core mechanics.

- Personalize the experience by aligning the onboarding process with the user's preferences or selected goals.

- **3. Engagement**

**Description:**

This is the core of the user journey, where players immerse themselves in the game's scenarios and interact with its challenges and characters.

**Key User Actions:**

- Navigating levels and completing tasks, such as catching lizards or solving puzzles.

- Interacting with NPCs to learn CBT-based skills.

- Participating in feedback loops, like earning rewards or leveling up.

**Touchpoints:**

- Game scenarios, dialogue prompts, and task interfaces.

- Feedback systems, such as points, badges, or personalized messages.

**Challenges:**

- Keeping users motivated throughout challenging levels or repetitive tasks.

- Addressing accessibility concerns for younger or less experienced users.

**Opportunities:**

- Implement adaptive difficulty settings to maintain engagement for diverse skill levels.

- Provide meaningful feedback and rewards to reinforce positive behaviors.

- **4. Progression**

**Description:**

In this stage, users advance through the game, reflecting on their accomplishments and building mastery over skills.

**Key User Actions:**

- Unlocking new levels, characters, or abilities.

- Reviewing progress and understanding their skill development.

- Reflecting on the connections between in-game challenges and real-life mental health skills.

**Touchpoints:**

- Progress dashboards or achievement summaries.

- New content unlocked as rewards for effort or skill development.

**Challenges:**

- Ensuring progression feels rewarding rather than frustrating.

- Linking game achievements to real-world emotional growth in an engaging way.

**Opportunities:**

- Use storytelling to connect progression milestones to the overarching narrative.

- Highlight skill development through in-game feedback and reports.


- **5. Retention**

**Description:**

Retention focuses on maintaining long-term user engagement by keeping the experience fresh and meaningful.

**Key User Actions:**

- Returning to the game for continued learning and challenges.

- Exploring new features, updates, or community events.

- Sharing experiences or achievements with peers or support groups.

**Touchpoints:**

- Push notifications, email updates, or social features like leaderboards.

- Post-game reflection prompts or self-assessment reports.

**Challenges:**

- Preventing user drop-off after initial excitement fades.

- Continuously adding value to the game experience.

**Opportunities:**

- Integrate community-driven features like challenges or collaborative tasks.

- Offer periodic content updates or exclusive rewards for returning users.

- **6. Advocacy**

**Description:**

In this final stage, users who have benefitted from the SMILE game may recommend it to others, becoming advocates for the platform.

**Key User Actions:**

- Sharing positive feedback with peers or on social media.

- Writing reviews or providing testimonials about the experience.

- Encouraging others to explore the game's benefits.

**Touchpoints:**

- Review prompts in-app or through emails.

- Social sharing buttons or referral systems.

- Case studies or testimonials featured on the website.

**Challenges:**

- Motivating users to share experiences, especially with sensitive topics like mental health.

- Managing negative feedback and addressing concerns constructively.

**Opportunities:**

- Incentivize advocacy through referral rewards or exclusive content for recommendations.

- Amplify user stories in marketing to build credibility and trust.

# 6. User Interaction Components

### 6.1 SMILE Serious game

The SMILE serious game is a smartphone-based app that makes learning Cognitive Behavioral Therapy (CBT) skills fun and interactive. Through engaging storytelling, hands-on tasks, and personalized feedback, the game helps young players build emotional resilience and improve cognitive flexibility. Designed for users aged 10 to 24, it's easy to use, accessible, and inclusive, making it suitable for a wide range of abilities. Built with Unity, the game runs smoothly on both Android and iOS mobile devices, delivering an immersive experience that keeps players engaged while they learn and grow.

**Gameplay Flow**

1. **Game Launch**: The player launches the SMILE Serious Game and is greeted by an engaging home screen displaying available scenarios and progress.

2. **Scenario Selection**: The player begins their journey by jumping into the first scenario. Scenarios are completed sequentially.

3. **Tasks and Mini-Games**:

   - Within each scenario, the player engages in multiple tasks and mini-games designed to teach CBT principles and promote emotional resilience.

   - Mini-games reward players with points and other in-game incentives for successful completion.

4. **Integration with Companion App**:

   - During gameplay, the player is periodically directed to the SMILE Companion App to answer questionnaires.

   - These questionnaires provide deeper insights into the player's thoughts and emotions, complementing their in-game progress.

5. **Scenario Completion**: After completing all tasks and mini-games within a scenario, the player returns to the main game interface to select the next scenario.

6. **Progression**: The player repeats this flow for each subsequent scenario, advancing their skills and knowledge while accumulating rewards and points.

### 6.1.1   Serious Game UI

The UI design for the SMILE Serious Game is crafted with a sleek cyberpunk aesthetic, merging futuristic visuals with intuitive functionality to create a deeply immersive experience. The aesthetic choice for the game was a direct results of the output of the work done in the workshops held as part of WP2 and mentioned in D2.2. With bold contrasts, neon accents, and sharp geometric elements, the interface reflects the digital, high-tech world of Hopetown,

enhancing the storytelling and drawing players into its vibrant narrative. The color palette, dominated by neon blues, oranges, and purples against darker backgrounds, ensures readability while reinforcing the theme of technological advancement and exploration.

To deliver both style and usability, the UI adheres to core principles of user-centered design. Consistency is maintained throughout the interface with uniform button styles, typography, and layout patterns, allowing players to predict navigation paths and focus on their gameplay. Visual hierarchy is employed effectively to guide the player's attention, with larger, brightly colored elements like action buttons or key information standing out against subtler background details. Interactive features, such as hover effects and animations, provide immediate feedback to user actions, creating a responsive and engaging interface.

Accessibility is a central consideration, ensuring the UI caters to players across the target age range of 10 to 24 years. Font sizes are carefully chosen for readability, while controls are intuitive and easy to interact with, whether on desktop or mobile devices. The cyberpunk design elements enhance the sense of immersion, but they are balanced with clear navigation and functionality, avoiding visual overload and ensuring that the aesthetic does not hinder usability.

By integrating the cyberpunk style with robust usability practices, the UI design enhances the narrative's futuristic tone while ensuring that players can navigate the game effortlessly. This thoughtful combination of aesthetics, accessibility, and functionality creates a seamless experience that engages and captivates players, keeping them invested in the world of Hopetown.
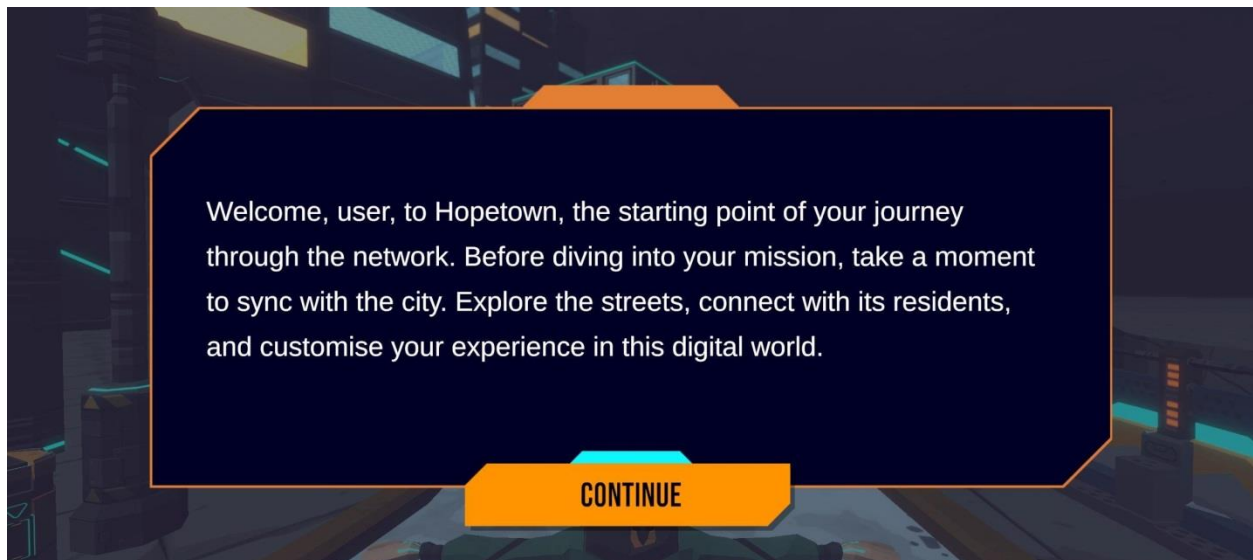


*Figure 1 Welcome screen*

The welcome screen introduces players to the digital world of Hopetown, setting the stage for their journey. It invites players to familiarize themselves with the environment, interact with the world's residents, and customize their experience before embarking on their mission. The interface prominently features a clear and engaging message box with a "Continue" button to guide players seamlessly into the game.
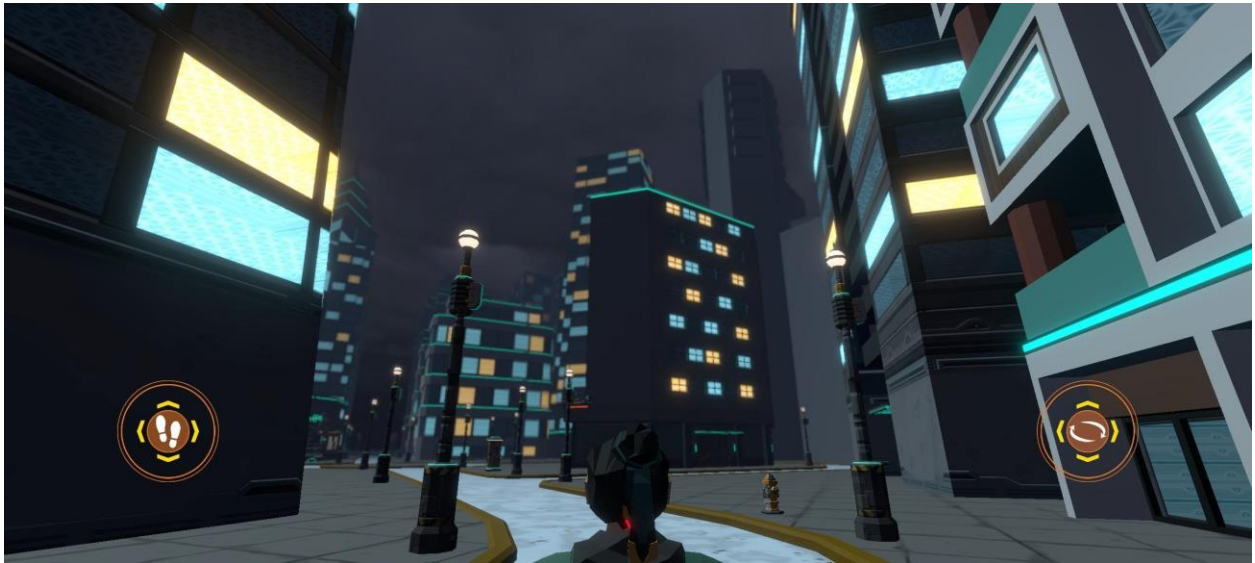
*Figure 2 Movement UI and controls*

The movement interface immerses players in a vibrant urban setting, showcasing an interactive 3D environment. The intuitive on-screen controls allow players to navigate the streets of Hopetown effortlessly, fostering exploration and interaction with the city's dynamic surroundings. Key elements, such as directional prompts, provide guidance while maintaining immersion in the digital world.
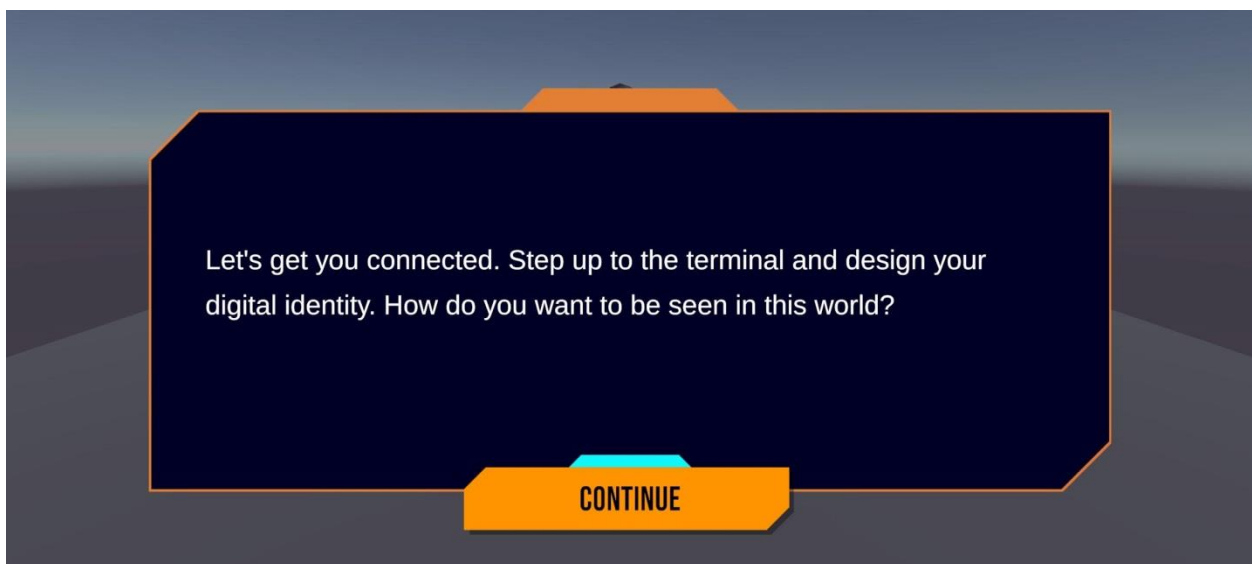


*Figure 3 Avatar customization screen*

The avatar customization screen introduces players to the personalization options available in the game. Here, users are encouraged to step up to a terminal to design their digital identity. The interface is clean and intuitive, allowing players to choose how they want to be represented in the digital world of Hopetown, fostering a sense of connection and ownership in their journey.
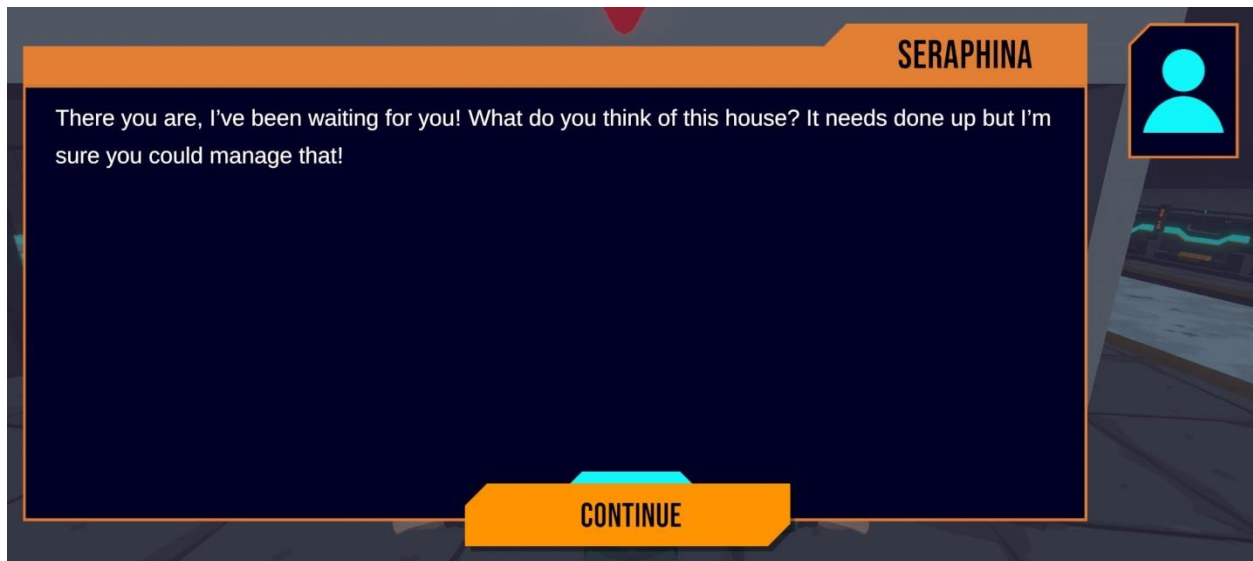


*Figure 4 Dialogue UI*

The dialogue UI showcases an interactive exchange between the player and an NPC, Seraphina. This dialogue-driven interface features a conversation box where Seraphina sets the tone with a warm welcome and presents the player with tasks or contextual information. The clear layout ensures the player remains focused on the story progression while maintaining immersion.
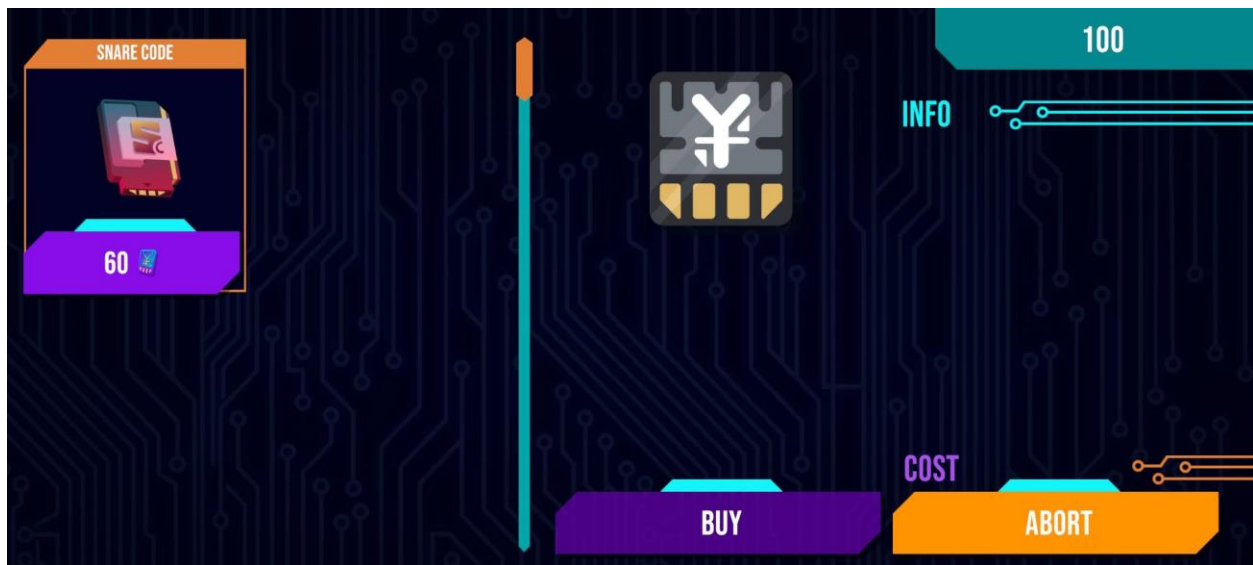
*Figure 5 Marketplace - select item UI*

The marketplace select item screen provides players with a sleek interface to browse and purchase in-game items. The highlighted item, "Snare Code," is displayed with its cost, alongside action buttons for "Buy" or "Abort." This simple yet efficient design ensures players can make decisions quickly while exploring their options in the marketplace.
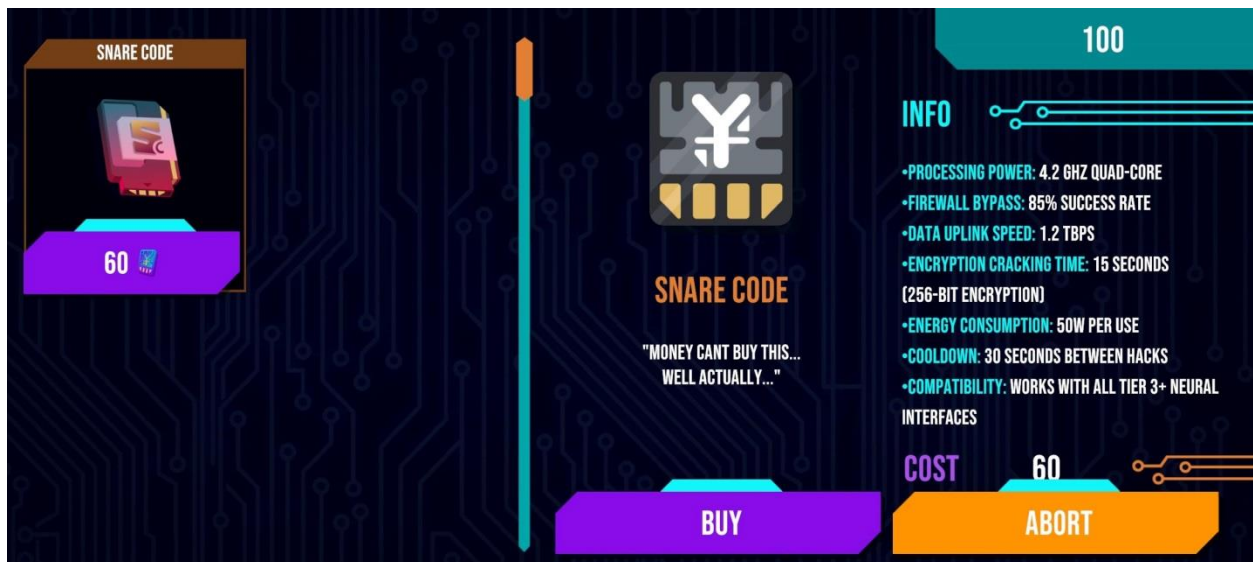


*Figure 6 Marketplace - item information UI*

This screen expands on the details of a selected item, offering comprehensive specifications for the "Snare Code." Players can review critical attributes such as

processing power, encryption time, and compatibility before committing to a purchase. The visually distinct layout ensures all essential information is presented clearly, empowering informed decision-making.

More UI screens of the game will be available and showed in the deliverable about the game in WP4.

### 6.2 SMILE Companion Application

Smile Companion App is a mobile application designed for study participants. The current implementation of the app enables participants to answer questionnaires, record weekly diary videos, and manage their account details and preferences. The current design of the app prioritizes intuitive use for each age group while meeting the study's requirements. Inspired by Duolingo, an interactive language learning application, we utilize a consistent set of native components to deliver a unified experience across iOS and Android platforms, leveraging React Native for implementation.

**Questionnaire Flow**
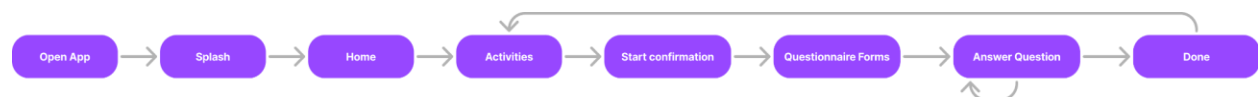


As depicted in the figure above, to answer a questionnaire, participants take the following steps:

1. **App Launch:** Participants can either open the app directly or through a notification.
2. **Splash Screen:** The app displays a splash screen with the SMILE project logo while loading initial data.
3. **Activities Screen:** After the splash screen, participants are directed to the activities screen which is the default view of the home screen, which shows both pending and completed activities.
4. **Questionnaire Selection:** Participants select a pending questionnaire activity they wish to start.
5. **Confirmation Modal:** A modal appears, prompting participants to confirm their decision to start the questionnaire.
6. **Questionnaire Completion:** Participants answer questions sequentially on separate screens.

7. **Completion Screen:** Upon completing all questions, participants are redirected to a completion screen displaying their earned reward.
8. **Return to Activities:** From the completion screen, participants can return to the activities screen.

**Record diary video**



Diary recording involves participants recording short video clips of themselves responding to a series of predefined questions out loud. This process is similar to a traditional questionnaire, except instead of multiple-choice questions, participants see a full-screen video feed of themselves with an initial prompt. After providing a voice response to a question, participants can click "Next" to move to the next question. Upon completion, participants are redirected to a completion screen and then can return to the activities screen

Account managements
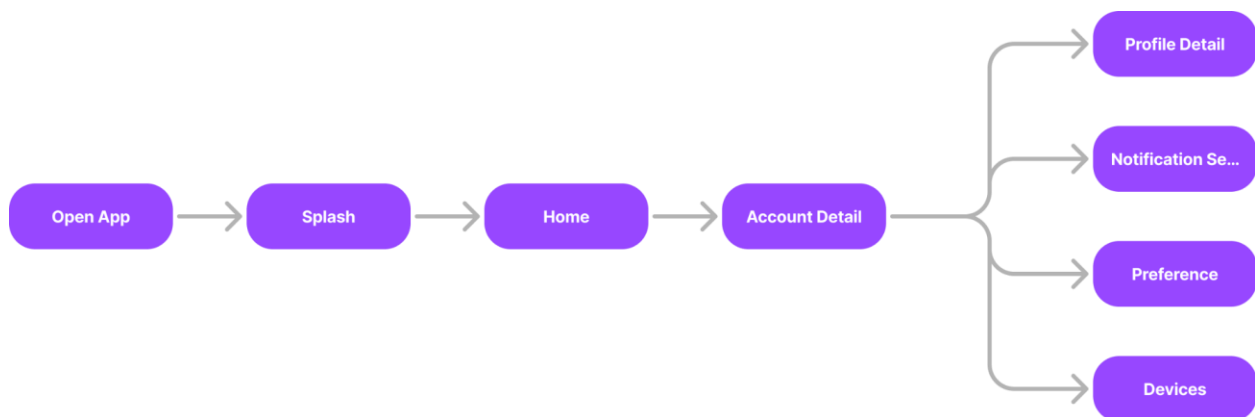


After opening the app and landing on the Home screen, participants click on "Account Details" to view a summary of their account information. They can then choose to modify their profile, adjust their preferences (such as date format, sound, notification settings, vibration etc.), and view devices connected to their account. To sign out, they can click the "Logout" button.

# Clinician Web
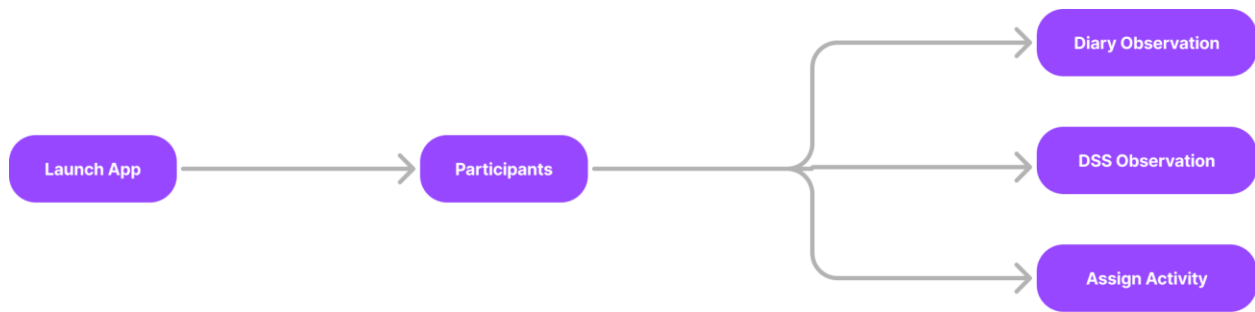
A web application designed for Pilot Administrators. It is developed using the React framework and is based on the "Ant Design" system, with some customizations to match the Smile brand colors. The app currently offers a single feature that allows Pilot Administrators to:

- First view a list of participants in their pilot.
- Then View participant Decision Support System (DSS) and Self Assessment and Monitoring Framework (SAMF) analysis results, which are derived from questionnaire and diary recording videos.
- Or assign new activities to participants.

# 7. Conclusion

The SMILE platform represents a significant advancement in leveraging digital tools for mental health support among young people. By adopting a robust UX design methodology, the project ensures that the platform is engaging, accessible, and aligned with therapeutic goals. The integration of gamified elements, psychological principles, and inclusive design has created an ecosystem where users can build resilience, explore cognitive-behavioral strategies, and manage their mental well-being effectively.

This deliverable, D2.3, not only captures the journey of UX design for SMILE but also sets a foundation for future iterations and enhancements, ensuring the platform evolves to meet the changing needs of its users.

The next steps include to test the user experience in the Living labs for further refinement and do changes incase of any such feedback received.

# 8.  References

[1] Hamari, Juho & Koivisto, Jonna & Sarsa, Harri. (2014). Does Gamification Work? — A Literature Review of Empirical Studies on Gamification. Proceedings of the Annual Hawaii International Conference on System Sciences. 10.1109/HICSS.2014.377. .

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