Universitat Oberta de Catalunya

Representation of Mental Illness in Story-Driven Games

Using Minigames as a Vehicle for Story in Adventure Games

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Master's Degree in Game Design and Development

Game Experience Design

Credits

While the document does not feature third-party resources, the prototype uses several free and paid packages and assets, for which the authors need to be recognized.

3D models

- "Cozy Reading Nook", by sakislaspas, found at: https://sketchfab.com/3d-models/cozy-reading-nook-9e56fa81de0d40feb283e600b9836e69
- "Kidman Room", by Veterock, found at: https://sketchfab.com/3d-models/kidman-room-907ac12c61744803b22a49efd74ec40a
- "Ice Cream Parlor", by brimanfunkman, found at: https://sketchfab.com/3d-models/ice-cream-parlor-e508c4a4e3864aedbfe1e6a7f0f8d6ec
- "Paper_ Kite_v03", by alixmodels, found at: https://sketchfab.com/3d-models/paper--kite-v03-1192eea7360d46fc8ed9d2cb33fa8e3c
- "Low Poly Computer Desk", by Nyangire, https://sketchfab.com/3d-models/low-poly-computer-desk-646ed84ecd9d40089c31d94f79334ca5
- "Photo album", by Boston College Digital Scholarship", found at: https://sketchfab.com/3d-models/photo-album-0c2ea994c2c44b6caa2a1e6e5d3b2d55
- "Seagull", by Dayvable, found at: https://sketchfab.com/3d-models/seagull-dc42ffc81c86480e9e7f7752fa134174
- "Cake Birthday", by Kenney, from: https://poly.pizza/m/38gefbloxw
- "Arcade Machine", by J-Toasitie, found at https://poly.pizza/m/gldkmhiynm
- "Briefcase", by jeryemy, found at: https://poly.pizza/m/8j8-b-rqj76
- "Bottle", by Quaternius, found at: https://poly.pizza/m/fahshfxftfy
- "Debris paper", by Quaternius, found at: https://poly.pizza/m/mujity1nrr
- "TIME HOTEL 3.26", by S. Paul Michael, found at: https://poly.pizza/m/1if2wyn0ebz
- "Guitar, by Zsky, found at Guitar - Free 3D Model By Zsky - Poly Pizza

Music

- "Path to Lake Land", by Alexandr Zhelanov (https://soundcloud.com/alexandr-zhelanov), found at: https://opengameart.org/content/path-to-lake-land
- "Sad Piano", by megaPixelMusic, https://soundcloud.com/megapixelmusic, found at: https://opengameart.org/content/sad-piano-0
- "Soliloquy", Matthew Pablo (http://www.matthewpablo.com), found at: https://opengameart.org/content/soliloquy
- "Full Moon", by Marcelo Fernández (http://www.marcelofernandezmusic.com), found at: https://opengameart.org/content/full-moon-0

Sounds

- "Glitch", by Pixabay, found at: https://pixabay.com/es/sound-effects/glitch-49142/
- "Picked Coin Echo", by NenadSimic, found at: https://opengameart.org/content/picked-coin-echo
- "WaHi siren to loop", by Pixabay, found at: https://pixabay.com/es/sound-effects/wahi-siren-to-loop-101484/
- "Young Herring Gull", by Tony Phillips, found at: https://soundbible.com/1161-Young-Herring-Gull.html

Unity Packages

- "City People Lite", by Denys Almaral, found at: https://assetstore.unity.com/packages/3d/characters/city-people-lite-260446
- "Classic Jukebox #3", by Staralfar, found at: https://assetstore.unity.com/packages/3d/props/electronics/classic-jukebox-3-69085
- "Low-Poly Park", by Thunderent, found at https://assetstore.unity.com/packages/3d/environments/urban/low-poly-park-61922
- "POLY - Lite Halloween Pack", by ANIMPIC STUDIO, found at https://assetstore.unity.com/packages/3d/environments/fantasy/poly-lite-halloween-pack-206554
- "POLYGON City - Low Poly 3D Art by Synty", by Synty Studios, found at: https://assetstore.unity.com/packages/3d/environments/urban/polygon-city-low-poly-3d-art-by-synty-95214
- "Polyverse Skies | Low Poly Skybox Shaders", from BOXOPHOBIC, found at: https://assetstore.unity.com/packages/vfx/shaders/polyverse-skies-low-poly-skybox-shaders-104017
- "Quick Outline", from Chris Nolet, found at: https://assetstore.unity.com/packages/tools/particles-effects/quick-outline-115488
- "Rain Maker - 2D and 3D Rain Particle System for Unity", by Digital Ruby (Jeff Johnson), found at: https://assetstore.unity.com/publishers/11088
- "Scene Switcher Utility", by BayatGames, found at: https://assetstore.unity.com/packages/tools/utilities/scene-switcher-utility-110262
- "Sketchfab for Unity", by Sketchfab, found at: https://assetstore.unity.com/packages/tools/input-management/sketchfab-for-unity-14302

FINAL PROJECT FICHE

Project title:	*Representation of Mental Illness in Story-Driven Games: Using Minigames as a Vehicle for Story in Adventure Games*
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Language:	*English*
Keywords	*story-driven games, minigames, dementia*

Abstract:

Despite increasing awareness and inclusion efforts, video games often fail to provide empathetic and accurate depictions of mental health issues. By prioritizing certain conditions over others, they even contribute to their invisibility, hindering the overcome of stigma. This issue is exacerbated by the frequent separation between mechanics and theme, resulting in a self-defeating diminishment of player understanding.

Based on the premise that video games can influence perceptions and foster empathy through interactive storytelling, this project aimed to enhance the representation of mental illness by seamlessly integrating these portrayals into the game's narrative and mechanics. The goal was to develop a story-driven adventure game that accurately portrayed dementia, using minigames as narrative devices while avoiding harmful stereotypes.

An extensive literature review was conducted on the disconnect between mechanics and theme, minigames, and the portrayal of mental illness in video games to identify prevailing issues. This was followed by an analysis of case studies, examining games that have depicted mental illness to understand their strengths and weaknesses.

The prototype underwent two stages of testing: an initial focus group for qualitative feedback on core mechanics and narrative integration and a final survey to evaluate the game's overall effectiveness and impact. Results demonstrated the feasibility and effectiveness of using interactive storytelling to address complex social issues in video games.

Ultimately, the project's outcomes aim to inspire a more inclusive and responsible game development community, where games serve as powerful tools for social change and education.

Resumen (Spanish):

Aunque la inclusión y la concienciación son cada vez más importantes, los videojuegos no siempre

ofrecen descripciones empáticas y realistas de los problemas de salud mental. Al dar prioridad a ciertas afecciones sobre otras, pueden incluso contribuir a su invisibilización, impidiendo una erradicación del estigma ya de por sí dificultada por la frecuente separación entre mecánicas y tema que disminuye la comprensión del jugador.

Bajo la premisa de que los videojuegos pueden influir en las percepciones y fomentar la empatía a través de la narrativa, el propósito de este proyecto era mejorar la representación de las enfermedades mentales integrándolas en la narrativa y las mecánicas a través del desarrollo de una aventura gráfica que representara la demencia de manera adecuada y libre de estereotipos mediante el uso de minijuegos como recursos narrativos.

Con el fin de identificar los problemas existentes, se llevó a cabo una extensa revisión bibliográfica sobre la desconexión entre mecánicas y tema, los minijuegos y la representación de las enfermedades mentales en los videojuegos, y se realizó un estudio de casos de videojuegos con representación de estas condiciones.

El prototipo se sometió a un grupo de discusión para recabar opiniones cualitativas sobre las mecánicas y la integración narrativa, y a una encuesta para evaluar su eficacia. Los resultados demostraron la viabilidad de utilizar la narración interactiva para abordar problemas sociales complejos.

Los resultados del proyecto pretenden inspirar una comunidad de desarrollo de videojuegos más inclusiva y responsable, en la que los juegos sirvan como herramientas para el cambio social y la educación.

To

"The greatest hazard of all, losing one's self, can occur very quietly in the world, as if it were nothing at all. No other loss can occur so quietly; any other loss—an arm, a leg, five dollars, a wife, etc.—is sure to be noticed."

— Søren Kierkegaard, The Sickness Unto Death

To my grandma, wherever she is.

To my mom, for enduring it all without losing herself.

To my fiancée and my daughter, for being the light that constantly saves me from losing myself.

Acknowledgment

I would like to acknowledge my tutor, Joan, for his amazing guidance and constant strive for excellence. I also extend my gratitude to Anna, Miguel, Sergio, and the rest of my colleagues, for their willingness to help and their continuous positive reinforcement, especially during the low points. Finally, I would like to thank my fiancée and my daughter for sharing my burden and providing me with the greatest support one could ever desire, even when everything was overwhelming and despite the times when my lack of time kept me from being there. I love you.

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Keywords

story-driven games, adventure games, minigames, representation, mental illness, dementia, emersion

Notations and Conventions

This section introduces and clarifies the various notations and conventions utilized throughout this document. Please refer to this section as needed to ensure clarity in the interpretation.

Citations and References

All sources have been cited and referenced according to the guidelines of the 7th Edition of the APA Publication Manual (American Psychological Association, 2020).

Language and Style

The document adheres to UOC's Language and Style guidelines (Universitat Oberta de Catalunya, n.d.) and APA's Publication Manual, encompassing rules concerning capitalization, numbers, gender, and other linguistic conventions.

While efforts are made to adhere to UOC's guidelines whenever feasible, it is important to note that precedence is given to APA's recommendations in case of conflict between the two policies. One noteworthy example pertains to capitalization. While UOC recommends using sentence case for headings, title case has been employed per APA guidelines.

Inclusive Language

Given the potentially sensitive nature of some topics addressed in this document, particularly those concerning mental illness and older adults, all usage of potentially harmful terms has been cross-referenced with authoritative sources on inclusive language, such as the 2nd Edition of the APA Inclusive Language Guide (American Psychological Association, 2023).

Use of AI

The author acknowledges the potential dangers of AI, particularly the impact of Large Language Models (LLMs) on the work of various professionals, such as artists, whose roles may be at risk of replacement. However, there have been situations during the development of the project where, due to time and budget constraints, AI tools have been utilized. While these limitations were the primary reasons for their use, there were also instances where AI was employed without ethical concerns, such as for supporting text revisions.

As English is not the author's native language, despite it being one of his main working languages due to his background in translation, any text generated within the project undergoes review by AI-powered tools such as Grammarly (2009) (Figure 1), DeepL Write (DeepL, 2023), or ChatGPT (OpenAI, 2022) to ensure the highest possible quality of language. However, it is essential to emphasize that **no textual content in this document has been developed using generative AIs**. All content, except for quotes from external sources, has been authored by the author, linguistically refined by AI, and finally reviewed by the author again to ensure the fulfillment of the guidelines described in this section. Transcripts can be provided on demand. As an example, the context rules provided to ChatGPT (OpenAI, 2022) were as follows:

- In order to avoid repetition, please understand that I thank you for all your help and each response.

- Text sent to you is meant to be reviewed for language accuracy, except if expressly stated otherwise. Feel free to suggest changes and take into account any possible issue, even minor, about grammar, orthography, semantics, and even style.

- Ensure that the revised text accurately reflects the original meaning and intent. Improve the clarity and readability of the text while preserving its essence.

- Double-check facts and details to ensure accuracy.

Figure 1: Review of the text using Grammarly
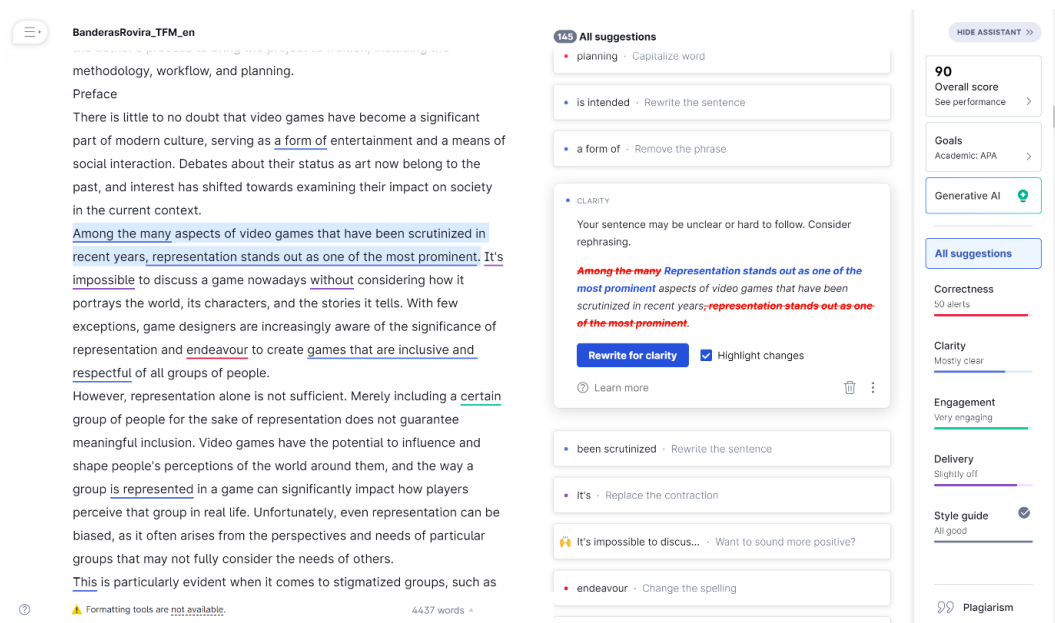
Note: Own work.

Nonetheless, due to the aforementioned time and budget constraints, generative AIs such as ChatGPT (OpenAI, 2022) have been used to create assets for the game prototype, particularly during the initial demonstration phase.

AI tools also assist the author in sourcing information through services like Consensus (2022) and conducting general information searches, complementing traditional search engines. They also perform other mechanical or repetitive tasks.

The complete list of uses of LLMs for assistance includes:

- Reviewing language correction and adequacy. ChatGPT (OpenAI, 2022), Grammarly (2009) and DeepL Write (DeepL, 2023).

- Looking up literature. Consensus (2022).

- Summarizing large quantities of text or analytical data. ChatGPT (OpenAI, 2022).

- Creating assets for the prototype. DALL·E (OpenAI, 2021) and Typecast (2017).

- Autocompleting and providing code suggestions. GitHub Copilot (GitHub, 2021).

- Assisting in creating technical documentation. GitHub Copilot (GitHub, 2021).

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1.Introduction

The expected outcome of the final project in any higher education program related to game development often involves the creation of a video game, wherein students apply the knowledge and skills acquired across various branches of the discipline, such as design and programming. However, a final project typically demands more than just the development of a game for the sake of completion; it requires providing substantive value.

In the case of professional-oriented projects, such as this one, the outcome is a solution to an existing problem. Therefore, the resulting video game needs to address a well-researched and relevant issue in the context where it is intended to be applied.

The subsequent section describes the idea behind the project, the problems it aims to solve, and the goals set to achieve it. It also outlines the author's process to bring the project to fruition, including the methodology, workflow, and planning.

1.1. Note

The aspects depicted in this section reflect the final version of the project approach. The initial version focused heavily on ludonarrative dissonance. However, the scope was narrowed during research as the available literature revealed that the topic diverged significantly from the author's aim, suggesting a different, though intriguing, project direction. Nonetheless, the research on this topic has not been discarded entirely; instead, the concept of ludonarrative dissonance has been incorporated into the current aim using a different approach.

1.2. Preface

There is little to no doubt that video games have become a significant part of modern culture, serving as entertainment and a means of social interaction. Debates about their status as art now belong to the past, and interest has shifted towards examining their impact on society in the current context.

Representation is one of the most prominent aspects of video games that have been scrutinized in recent years. It is only possible to discuss a game nowadays by considering how it portrays the world, its characters, and the stories it tells. With few exceptions, game designers are increasingly aware of the significance of representation and endeavor to create inclusive and respectful games for all groups of people.

However, more than representation is required. Merely including a particular group of people for the sake of representation does not guarantee meaningful inclusion. Video games have the potential to influence and shape people's perceptions of the world around them, and the way a group is represented in a game can significantly impact how players perceive that group in real life. Unfortunately, even representation can be biased, as it often arises from the perspectives and needs of particular groups that may not fully consider the needs of others.

This is particularly evident when it comes to stigmatized groups, such as individuals living with mental illness. Not only are they underrepresented in video games, but when they are depicted, it is often in a manner that is not only inaccurate but also harmful. The portrayal of mental illness in video games frequently resorts to a series of stereotypes that fail to reflect the experiences of those living with these conditions accurately.

The problem is exacerbated when considering that even within specific groups, some are more represented than others. For instance, while depression and anxiety are common themes in video games, other conditions, such as senile dementia or severe mental illnesses like schizophrenia or bipolar disorder, are often overlooked. This not only underscores a problem of representation but also one of visibility. By prioritizing certain conditions over others, video games contribute to the invisibility of some groups, hindering their ability to access support and understanding.

Even when mental illness is represented in video games, it is often done in a way that is disconnected from the core mechanics of the game, creating a dissonance that hinders players' immersion in the narrative and likely their understanding of the represented condition.

While it may be tempting to blame game designers for this situation, the truth is that the problem is much more complex. The representation of mental illness in video games is not solely a matter of creativity; it is also a matter of social responsibility. Game designers are not just artists; they are educators responsible for creating entertaining but also respectful and inclusive games.

1.3. Theme and Focus

The idea of using **mental illness** as the theme for the project had been brewing long before its inception, even preceding the author's studies in game development. His interest in the theme stems from personal circumstances, having witnessed the effects of mental illness, particularly senile dementia, on close family members. This experience prompted him to question the portrayal of mental illness in video games and how it can be improved to provide a more accurate and empathetic representation. However, personal motivations are not the sole driving force behind the project. As mentioned in the preface, the representation of mental illness in video games, even when present, is often inaccurate and harmful, impacting a significant portion of the population.

However, given that the representation of mental illness, even when narrowed down to senile dementia, is a broad and complex issue, the project requires a more specific focus. The research is contextualized within **story-driven games**, a genre renowned for its rich storytelling and character development. Additionally, the project emphasizes the role of **minigames** within this genre, recognizing their potential as a tool for narrative development.

1.4. Issues

While the theme and focus delineate the initial direction and research pathways that will shape the game expected as an outcome of this work, it is essential to acknowledge that they are predominantly

subjective aspects stemming from the author's specific interests. For the project to hold genuine value, identifying the existing real-life issues it aims to respond to is paramount.

1.4.1. Main Issue

While some games have attempted to portray mental illness, they often struggle because they fail to integrate these experiences effectively into the game's core mechanics. This disconnect between game mechanics and theme is common in video games, particularly when dealing with sensitive topics such as mental illness, which can have harmful consequences for individuals living with these conditions. As a result, it is imperative to address the **disconnect between the representation of mental illness and the game mechanics** in this project.

1.4.2. Secondary Issues

A clear secondary issue identified in the project is the **poor representation of mental illness in video games**. While this issue is multifaceted and encompasses several sub-issues, it can be treated as a single entity due to its overarching nature. Unlike the main issue, it does not require the same depth of analysis but rather necessitates ensuring that the representation of mental illness is accurate and respectful in the project outcomes.

Further examination reveals several sub-issues stemming from the poor representation of mental illness in video games, including underrepresentation and harmful stereotypes. At least one sub-issue should be addressed in depth to ensure meaningful research. Therefore, another secondary issue to consider is the **frequent portrayal of mental illness as storytelling artifacts rather than lived experiences**.

1.5. Questions

The next step is formulating questions to guide the research and development process. These questions should address the identified issues and provide a clear direction for the project.

1.5.1. Main Questions

Given that the main issue of the project revolves around the disconnect between game mechanics and the representation of mental illness, this project's primary question may be formulated as: **"How can the representation of mental illness in video games be enhanced by integrating it into the core mechanics?"**

Considering the project's specific focus, a more direct approach emerges: **"How can minigames be effectively used as narrative devices to provide a more accurate and empathetic representation of mental illness in video games?"**

1.5.2. Secondary Questions

Although the main questions exhibit a bias towards the concept of disconnection or dissonance, which is known to hinder immersion in video games, what if this phenomenon could be reimagined as a positive narrative tool? This raises another potential question for exploration in the project: **"Can emersion be leveraged as a narrative tool in video games dealing with mental illness?"**

Besides, since the secondary issues are related to the poor representation of mental illness in video games, a concept deemed too broad to be addressed in depth, the secondary questions should focus on specific aspects of this issue that must be considered when designing the project outcomes. For example:

- Are current depictions of mental illness appropriate?
- How do inaccuracies in portrayal affect players' perceptions of mental illness?
- What approaches to game design can enhance the representation of mental illness?
- What steps can be taken to ensure more diverse representations of mental illness?
- How can the reinforcement of stereotypes be avoided?
- Are medical experts and patients taken into account in game design?
- Should the approach to integrating mental illness into game design be seen as a means of improving representation, raising awareness/empathy, or both?
- Do depictions of mental illness address the impact on the context of individuals experiencing them?
- What ethical guidelines should be followed when portraying mental illness in games?
- How can negative and positive depictions of mental illness be balanced in games?

Given that one of the identified issues specifically addresses the typical portrayal of mental illness as a secondary storytelling device, a pertinent question regarding the poor representation could be: **"What measures are required to ensure that mental illness is portrayed as a lived experience rather than merely a storytelling device?"**

1.6. Objectives

The project objectives correspond with the questions formulated in the previous section. They establish a clear direction for the research and development process, delineating the goals to ensure the project's success.

1.6.1. Main Objectives

The primary objective of the project is **to develop a story-driven adventure game that accurately portrays mental illness and integrates it into the core mechanics of the game**, utilizing minigames as narrative devices.

Additionally, the project aims **to provide players with an immersive journey where the mechanics echo the game's narrative**. This integration of mental illness into the core mechanics aims

to provide players with a profound understanding of the challenges faced by individuals living with these conditions.

Moreover, the project will allow the author **to study the current state of the video game scene regarding mental illness and the implications of ludonarrative dissonance on its representation**. The author will gain valuable insights into the challenges and opportunities of representing sensitive topics in video games by developing a game that integrates mental illness into its core mechanics.

1.6.2. Secondary Objectives

In addition to the primary objectives, the project aims **to address the poor representation of mental illness in video games by avoiding harmful stereotypes and ensuring that depictions are accurate and respectful**. The project will strive to create an informative and engaging game by incorporating feedback from medical experts and individuals with mental illness.

Furthermore, the project aims **to explore the potential of emersion as a positive tool for narrative development**. The project will seek to create an immersive and thought-provoking experience that challenges players' perceptions of mental illness by leveraging the disconnect between game mechanics and narrative representation.

1.7. Methodology and Workflow

This subsection describes the methodology and key concepts utilized throughout the project, including strategies, research and development methods, and resources.

1.7.1. Literature

Before embarking on the design of the prototype, it is essential to research the theme and related issues. This research is crucial for developing a consistent theoretical framework and supporting any claims or decisions made during the prototype development process.

The initial phase of the research involves reviewing existing literature. The following types of sources are considered:

- Research papers obtained from search engines such as Web of Science, ResearchGate, Google Scholar, or Consensus.
- Web articles from specialized sources such as Game Developer.
- Books and book chapters relevant to the project's theme.
- Videos from conferences like GDC or streaming services like YouTube or Twitch.
- Podcasts.
- Interviews with video game experts, scholars, and players.
- Participatory observation.

Acknowledging that not all sources discussing the project's theme are deemed valid is crucial. Several factors are considered in their selection, including:

- Number of citations.
- Recency (published within the last five years, except for influential sources).
- Author reliability, particularly in non-scientific sources.

The review of these sources is conducted in three phases:

1. Initially, superficial research is performed to assess the potential validity of the issues identified as starting points.
2. Subsequently, 20 to 25 sources are selected based on the abovementioned criteria. After reading the abstracts to ensure their relevance to the topic, they are thoroughly examined and used as quotes and references for developing the state of the art and theoretical framework.
3. Finally, a waterfall research approach is employed, incorporating sources frequently cited by previously reviewed materials. This step aims to further enhance and expand upon the state of the art and the theoretical framework.

1.7.2. Study Cases

The second phase of the research focuses on identifying the project units of analysis, specifically video games that may serve as examples of the identified issues or provide solutions to them. Approximately 5 to 10 video games are selected to represent the issue at hand. These games are either played directly or observed through online gameplay videos if they are lengthy. Subsequently, a brief description is incorporated into the study, highlighting how these games represent or contribute to the investigation.

A review card is prepared to facilitate the analysis of these units. This card includes the game's metadata, such as name, genre, and publisher, and a checklist of aspects to observe derived from the previously defined issues and questions and any interesting topics observed during the literature review.

1.7.3. Technical Demo

The primary outcome of the project, and the target of all research, is a vertical slice of a story-driven game within the adventure genre. This game prominently features minigames as integral components, actively driving the development of the narrative alongside its core mechanics.

However, as obtaining feedback from potential players and other groups of interest, such as health professionals or other professionals, is a crucial aspect of the research, the prototype is presented in two distinct stages:

1. An initial, limited version of the game includes the core mechanics and any other aspects requiring feedback before further development.
2. A final version integrates feedback from the initial iteration and incorporates any additional elements that may have been overlooked initially.

The initial game design diverges from the conventional notion of levels, consisting instead of a series of static scenes representing the memories of an older adult. These scenes may evolve or

change based on player interactions. Some memories and variations remain locked for story-related reasons and require minigames as narrative mechanisms to unlock them. Additionally, the scenes are interconnected to maintain narrative coherence, and players can reorder them and place them within the age groups of the main character (childhood, adolescence, adulthood, and old age).

If this design persists in subsequent project stages, the two phases will entail:

1. An initial, limited set of scenes, including the tutorial, will allow players to experience the core mechanics, minigames, and the ordering/grouping feature.
2. A final version will integrate feedback from the initial iteration and incorporate the remaining scenes and any additional elements that may have been overlooked, such as visuals and sounds.

Regardless of the final design, the development of the technical demo always encompasses the following steps:

1. Elaboration of a light Game Design Document (GDD) including narrative design, core mechanics, descriptions of levels (in separate Level Design Documents – LDD), as well as aspects related to ambiance, visuals, sound, market analysis, target audience, and the business model.
2. Compilation of a light Functional Requirements Document (FRD) detailing the technical aspects of the game architecture, such as data models, flowcharts, and other relevant specifications.
3. Procurement of assets for use in the prototype, which may include third-party assets and others created in-house.
4. Development of the prototype for WebGL and PC platforms, primarily utilizing Unity, Rider, and other tools to achieve the desired outcomes.

1.7.4. Testing and collecting empirical data

To make sure the playable prototype is user-friendly and accurately shows themes of mental health and aging, a careful two-stage plan for testing and gathering feedback was established.

The first stage involves conducting focus group sessions with a diverse group of participants. The focus group will consist of individuals with varying degrees of experience in video games and differing backgrounds in game development and mental health. This diversity ensures a wide range of perspectives and insights.

Participants will engage with the prototype for a set period, approximately 10 minutes, allowing them to experience the core mechanics and narrative elements. Following the gameplay session, participants will be asked to provide feedback on the following aspects:

- Overall impressions of the game.
- Clarity and effectiveness of the instructions.
- Accuracy and empathy in the representation of mental health.
- How well the gameplay mechanics support the representation.

The second stage involves distributing a survey to a broader audience to gather quantitative data. The survey will include questions designed to evaluate:

- Overall player experience.
- Clarity and usability of the game instructions.
- Perceptions of the accuracy and empathy in the portrayal of mental health.
- Effectiveness of the game mechanics in conveying the intended themes.

Data collected from both the focus group and the survey will be systematically analyzed to identify common themes, patterns, and specific areas requiring attention. The insights gained from this empirical data will be applied to refine and enhance the game's design, mechanics, and narrative..

1.8. Planning

The project utilizes Agile methodologies, specifically a custom blend of Scrumban. Tasks are managed through a Trello board (Figure 2) and assigned in one-week sprints. The task distribution is reviewed at the start of each sprint to accommodate any potential changes to the plan resulting from delays or feedback from prior deliveries.

Figure 2: Project planning in Trello
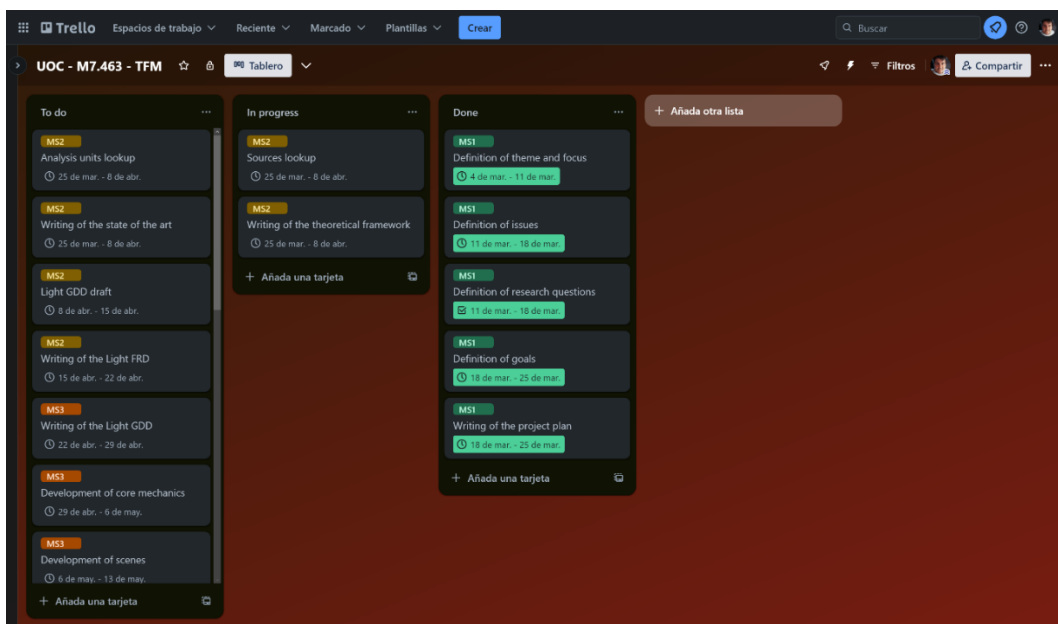
Note: Own work.

The project spans 17 weeks, with eight dedicated to software development. It is worth noting that the planning encompasses tasks of all types, from management to documentation.

For an initial estimate of project tasks and their distribution in sprints, please refer to **Table 1**.

Table 1: Project planning

Concept	Week	Start	Finish
Definition of theme and focus	1	04/03/2024	10/03/2024
Detection of issues and questions	2	11/03/2024	17/03/2024

Definition of goals and writing of the project plan	3	18/03/2024	24/03/2024
MS1. Project plan	-	24/03/2024	24/03/2024
Development of state of the art and theoretical framework	4+5	25/03/2024	07/04/2024
Draft of light GDD: Design of the proposal and the business model	6	08/04/2024	14/04/2024
Compilation of light FRD: Functional requirements and architecture definition	7	15/04/2024	21/04/2024
MS2. State of the art and first version	-	21/04/2024	21/04/2024
Final version of light GDD: Level design, storyboards, decision trees	8	22/04/2024	28/04/2024
Development of core mechanics	9	29/04/2024	05/05/2024
Development of scenes and characters	10	06/05/2024	12/05/2024
Development of UI, tests, and dissemination of the technical demo	11	13/05/2024	19/05/2024
MS3. Implementation of the playable version	-	19/05/2024	19/05/2024
Feedback analysis and design of changes	12	20/05/2024	26/05/2024
Additional development	13+14	27/05/2024	09/06/2024
Tests and project conclusions	15	10/06/2024	16/06/2024
MS4. Project report and final product	-	16/06/2024	16/06/2024
Preparation of the oral defense	16+17	17/06/2024	30/06/2024
MS5. Oral defense	-	30/06/2024	30/06/2024

Note: Own work.

A Gantt chart for the project planning is also available in Figure 3. Please refer to Annex B1 below for a higher-resolution version due to space constraints.

Figure 3: Project planning and Gantt chart
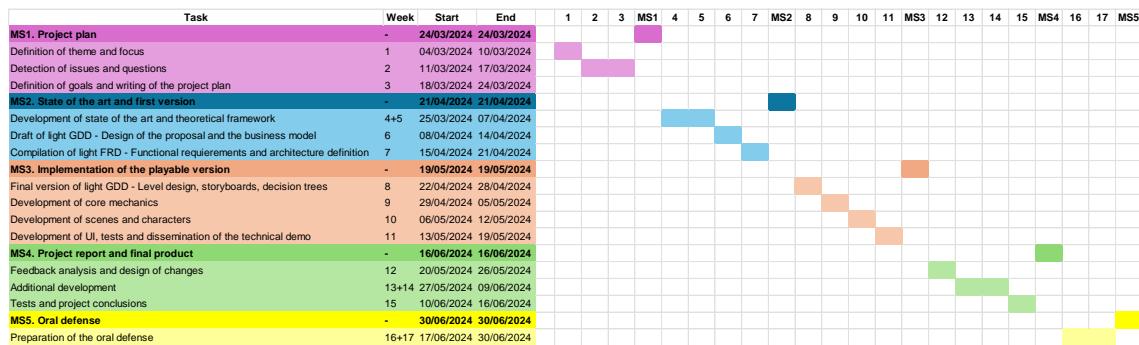
Note: Own work.

1.9. Budget

Considering the limitations in both time and income sources, the budget estimates costs for a one-person team over the two-month development period. However, it may not accurately reflect the final expenses incurred.

Table 2: Project budget

Type	Subtype	Concept	Cost	Cost type	Amortization years	Adjusted cost
Direct costs	Wages	Full-stack developer and designer	18,00 €	Per hour	-	5.760,00 €
	Software	Unity Editor	- €	One-time	-	- €
		JetBrains Rider	- €	One-time	-	- €
		GIMP	- €	One-time	-	- €

		Krita	- €	One-time	-	- €
		sfxr	- €	One-time	-	- €
		Trello	- €	One-time	-	- €
	Materials	Access to sources, including the acquisition of books and video games	500,00 €	One-time	-	500,00 €
Indirect costs	Supplies	Electricity	60,00 €	Per month	-	120,00 €
		Water	50,00 €	Per month	-	100,00 €
		Internet service	40,00 €	Per month	-	80,00 €
	Equipment	Chair	300,00 €	Amortization	5	10,00 €
		Standing desk	800,00 €	Amortization	5	26,67 €
		Laptop	1.700,00 €	Amortization	5	56,67 €
		Drawing tablet	300,00 €	Amortization	5	10,00 €
		Headset	100,00 €	Amortization	5	3,33 €
					TOTAL	**6.666,67 €**

Note: Own work.

1.10. Document Structure

The purpose of this chapter is to introduce the process undertaken during the project's development. Subsequent chapters detail this process, outlining the actions taken in each phase and presenting any interim outcomes that may arise.

To summarize:

- Immediately following the introduction, Section 2 presents the theoretical framework that was initially integrated into the market analysis but has since been separated for organizational purposes.
- Section 3 presents the market analysis results, covering the state of the art, the target audience, and a SWOT analysis.
- Section 4 then details the proposal from design and business perspectives, including or mentioning the light GDD.
- In Section 5, technical specifications are outlined, ranging from product architecture to descriptions of the data model and APIs, with the light FRD included or mentioned.
- Section 6 describes the implementation process and includes instructions on obtaining and launching the prototype.
- Following this, Section 7 showcases the implementation outcomes, providing details on the prototype and its usage instructions.
- Subsequently, Section 8 offers conclusions drawn from the research and identifies potential future avenues for enriching both the study and the game.
- Finally, two las unnumbered sections contain references and any annexes referenced within the text.

2. Theoretical Framework

In support of the design decisions and claims made throughout the development of the prototype, a thorough exploration of relevant literature is essential. This section delves into foundational concepts and theories pertinent to the representation of mental illness in video games, addressing it as the project's central theme. Additionally, secondary aspects derived from the project's focus and established issues are also explored within this theoretical framework.

The complete list of sources used to support the claims made in the following section, as well as in other sections of the document, is listed in the References section below, Furthermore, the complete database of sources that were considered during the initial lookup can be found in Annex B.2 below.

2.1. Mechanics

Putting the cart before the horse is often unwise; however, to maintain a specific narrative thread, the research description begins not with the project's theme or focus, but rather at the latter part of the main issue—mechanics—and therefore at the definitions, frameworks, and tools that have shaped modern game design, starting with the fundamental question of what constitutes a game.

2.1.1. Definition of game

Beginning with a dictionary definition of "game" or "video game," although common, is a trope this text will avoid because it often falls short in capturing the nuances provided by prominent interpretations in the field. In the realm of games, despite the ongoing debate over their definition, several authors from Huizinga to Juul frequently feature in such discussions due to the significant impact their work has had on societal conceptions of what constitutes a game.

More than eighty years ago, Johan Huizinga approached the concept of a game from an anthropological and philosophical perspective in his seminal work, *Homo Ludens* (Huizinga, 1938/2016). This work is frequently regarded as the foundational reference in the field and, among other contributions, introduced the term "magic circle" to describe the distinct space that, in his view, the player enters when engaging with a game. Huizinga defines a game as "[…] a free activity standing quite consciously outside 'ordinary' life as being 'not serious,' but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means."

Huizinga's approach to the concept of games has not been without criticism. Roger Caillois (1961/2001) argues that Huizinga's definition "is at the same time too broad and too narrow." Caillois suggests it is too broad because it includes the "secret or mysterious" and too narrow because it excludes bets and games of chance. Jesper Juul (2003) summarizes Crawford's definition of a game as "an activity which is essentially: Free (voluntary), separate [in time and space], uncertain, unproductive,

governed by rules, make-believe". Other authors, such as Gordon Calleja (2012) or Taylor (2007), have also criticized the concept of the magic circle, considering it "oppressive", "unproductive" and even "misleading".

More recent definitions of the concept of game include that provided by Crawford (1982/1984), who identifies four factors that are present in every game, as summarized by Juul (1998/2001): representation, indicating that "a game is a closed formal system that subjectively represents a subset of reality;" interaction signifying that "the game acknowledges and reacts to the player;" conflict attesting that "a game presupposes a conflict […] this can be either between several players or between the players' goal and whatever prevents the player from reaching that goal;" and safety, ensuring "the player is safe (in a literal sense) from the events in the game."

In *Rules of Play: Game Design Fundamentals*, Katie Salen and Eric Zimmerman (2003) propose a unified model for all kinds of games and define games as "a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome." This definition is widely accepted and holds significant influence in the game design scene today.

Finally, one of the most comprehensive definitions available today, taking into account previous work, is provided by Juul (2003) who proposes six features that define a game (Figure 4): rules; variable, quantifiable outcome; value assigned to possible outcomes, some being positive, some being negative; player effort (i.e. games are challenging.); player attached to outcome (winner and "happy", loser and "unhappy"); and negotiable consequences.

Figure 4: Jesper Juul's 6-Feature Game Diagram
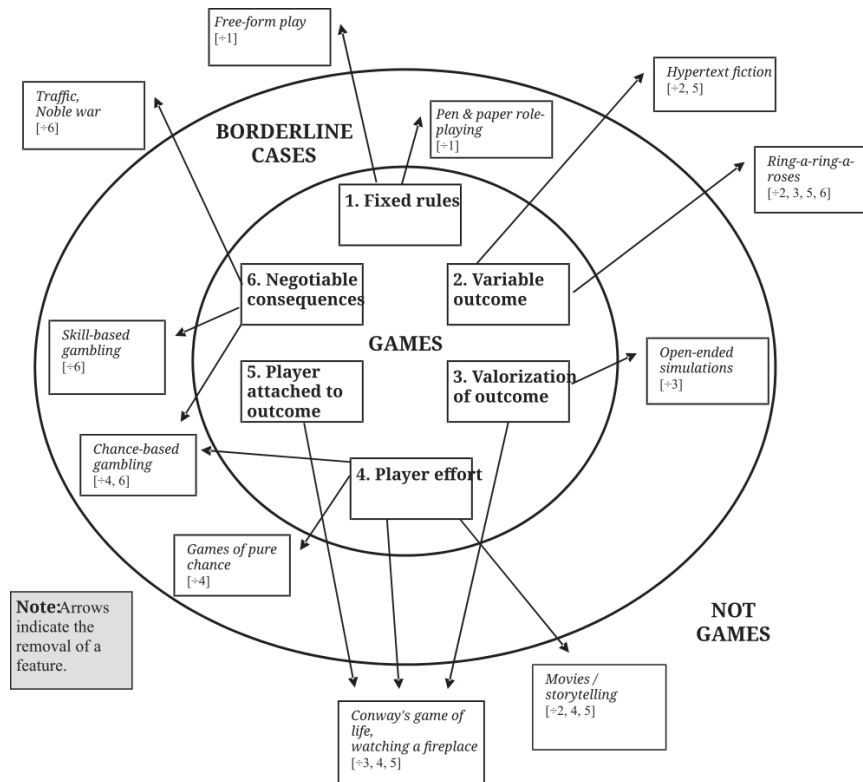
Note: From Juul, 2003.

2.1.2. Frameworks for game analysis

Initiating the research with existing approaches to the concept of game was a deliberate choice. As discussed previously, all the definitions encountered in the reviewed literature emphasize one particular aspect of games—rules. Many describe games as systems, and some even touch upon the fun or 'unseriousness' associated with games. This serves to highlight the multidimensional nature of games, which has been used as a foundation to develop various ontologies for game organization. These ontologies, in turn, facilitate the introduction of different concepts that are explored in subsequent stages of the research.

One of the many proposals for organizing these dimensions within games is through frameworks and tools used for analysis at different levels of abstraction, with MDA (Mechanics, Dynamics, and Aesthetics) being one of the most well-known. Robin Hunicke, Marc LeBlanc and Robert Zubek (2004) proposed the MDA as "a formal approach to understanding games—one which attempts to bridge the gap between game design and development, game criticism, and technical game research." The framework "formalizes the consumption of games [by the player] by breaking them into their distinct components" (rules, system and "fun", as identified above) and "establishing their design counterparts": mechanics are "the particular components of the game, at the level of data representation and algorithms;" dynamics are "the run-time behavior of the mechanics acting on player inputs and each others' outputs over time;" and aesthetics are "the desirable emotional responses evoked in the player, when she interacts with the game system."

Huckicke, LeBlanc and Zubek also posit that "games are more like artifacts than media […] that the content of a game is its behavior—not the media that streams out of it towards the player", suggesting that games can be framed as "as systems that build behavior via interaction".

In this context, what distinguishes the MDA framework is not merely the definition of design counterparts for game components, but rather the interrelation between them. Each component can be thought as a "view" of the game—"separate, but casually linked". According to the authors: "From the designer's perspective, the mechanics give rise to dynamic system behavior, which in turn leads to particular aesthetic experiences (Figure 5). From the player's perspective, aesthetics set the tone, which is born out in observable dynamics and eventually, operable mechanics."

Figure 5: Component interrelation in the MDA Framework
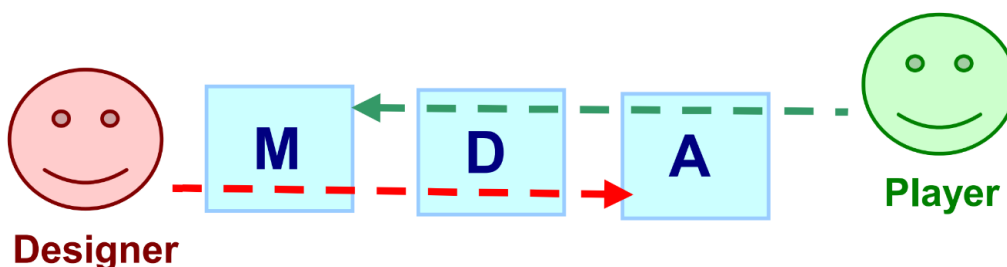
Note: From Hunicke et al., 2004.

Similar to Huizinga's definition of a game, the MDA framework has not been without criticism. Since its introduction in 2004, concerns have been raised about its arbitrariness and its applicability to all types of games. For instance, Dormans (2012) describes the eight kinds of fun proposed by the MDA model (which will be discussed later in this document) as "a rather arbitrary list of emotional targets, which is hardly explored with any depth."

Some critics have proposed derivative or evolutionary versions of the framework, such as DDE (Design, Dynamics, and Experience), MDAT+N (Mechanics, Dynamics, Aesthetics, Technology, and Narratives) or the 6-11 framework (which will also be discussed later). In the case of DDE, Wolfgang Walk, Daniel Görlich, and Mark Barrett (2017) propose the model as an improvement over MDA, addressing limitations raised by other authors, which they reduce to two main criticisms: "It neglects many design aspects of games, focusing too much on game mechanics," and "It is (therefore) not suitable for all types of games, including particularly gamified content or any type of experience-oriented design (as opposed to functionality-oriented design)."

They also posit that MDA "fails to provide a framework or even a coherent approach for narrative design" because narrative doesn't belong to any of the three components of the framework.

To overcome these limitations, the DDE framework replaces the MDA components with the its own. The first component, design, encompasses the production process and includes three sub-categories that reflect both the production stages and the path that the player follows: the blueprint "deals with the game world in concept: its cultures, religions, physics and other rule sets; the free form notation of the game mechanics; and the developed styles of art design, narrative design, character design, and sound design that together create the aesthetical experience;" the mechanics include "everything creating the game in the abstract, meaning in code;" and the interface concerns "the design and production of elements creating the game in the concrete: everything that serves to communicate the game world to the player – how it looks, how it sounds, how it reacts and interacts with the player and the game's internal feedback loops."

The other two components are the dynamics, which involves orchestrating all the components of the game and integrating them into a cohesive experience, and the experience, which replaces the aesthetics component from MDA and focuses on the concepts of player-subject, where the player becomes "a mental character with a different set of abilities, thinking capabilities, confidence-levels and ethics", and the antagonist, which "helps generate conflict, contrast or tension of differing levels."

DDE doesn't appear to have taken root in the game design scene—at least not yet. According to the literature reviewed, MDA seems to retain its status as the reference framework.

2.1.3. Definition of mechanics

Turning to the topic at hand, the ontologies discussed above should shed light on how to define mechanics. MDA further defines mechanics as "the various actions, behaviors, and control mechanisms afforded to the player within a game context," emphasizing that mechanics, along with the game's content (levels, assets, etc.), support overall gameplay dynamics. This concept is illustrated

with examples from card games, where mechanics include shuffling, trick-taking, and betting, giving rise to dynamics such as bluffing. In contrast, in DDE, the term "mechanics" represents a more specific concept, focusing on everything at the code level: "code architecture, input/output handling, object handling, implementation of game rules and object interaction, and other code-related elements […] what the player does not directly see or hear during play."

Given the existing conflict in their definitions, both MDA and DDE may hint at what is expected from mechanics (player interaction, available actions, etc.), but they may not fully explain the topic in a way that satisfies all circumstances. Therefore, expanding the research to additional sources could provide a more comprehensive understanding of the topic.

Enter Miguel Sicart. In his article titled "Defining Game Mechanics," (2008) he extensively examines existing definitions up to the date of publication and presents one of his own that has since become highly influential and widely accepted in the field. Sicart compares the definitions provided by different authors (**Table 3**) based on various criteria, including whether they differentiate mechanics from rules, their dependence on goals, and their consideration of player behaviors. He concludes the comparison by stating that "mechanics are used to describe how players interact with rules, and as more formal properties of a game such as game goals, player actions and strategies, and game states", but he notes that the existing definitions "do not provide a single, dominant approach that encompasses all these aspects."

Table 3: Definitions of Mechanics

Source	Concept	Definition
Avedon, 1971	Procedures for action	"specific operations, required courses of action, method of play"
Lundgren & Björk, 2003	Mechanics	"any part of the rule system of a game that covers one, and only one, possible kind of interaction that takes place during the game, be it general or specific (…) mechanics are regarded as a way to summarize game rules"
Rouse III, 2001	Mechanics	"what the players are able to do in the game-world, how they do it, and how that leads to a compelling game experience"
Fullerton et al., 2004	Game procedures	"the actions or methods of play allowed by the rules (…) they guide player behaviour, creating interactions"
Cook, 2006	Mechanics	"game mechanics are rule based system/simulations that facilitate and encourage a user to explore and learn the properties of their possibility space through the use of feedback mechanisms"
Hunicke et al., 2004	Mechanics	"mechanics describes the particular

		components of the game, at the level of data representations and algorithms (…) mechanics are the various actions, behaviours, and control mechanisms afforded to the player within a game context"
Järvinen, 2009	Mechanics	"means to guide the player into particular behaviour by constraining the space of possible plans to attain goals (…) game mechanics are best described with verbs"

Note: Based on Sicart, 2008.

Sicart then proceeds to provide his definition from a formal perspective: "game mechanics are methods invoked by agents, designed for interaction with the game state", and elaborates on it by explaining how it draws on concepts derived from programming, such as the Object-Oriented approach, and reflects some aspects highlighted by previous authors, such as Järvinen's comparison between mechanics and verbs. Sicart highlights two advantages of his definition: it departs from the implicit anthropocentrism of previous approaches, since "game mechanics can be invoked by any agent, be that human or part of the computer system;" and it eases the mapping of mechanics to input devices, allowing for a great degree of granularity in the analysis of games.

Sicart's definition implicitly distinguishes mechanics from rules and challenges, with challenges defined as "a situation in which the outcome desired by the player requires an effort to accomplish." He also delineates the boundaries of mechanics by asserting that "there is more to the act of playing a game than just interacting with mechanics constrained by rules (...) the formal, analytical understanding of mechanics only allows us to design and predict courses of interaction, but not to determine how the game will always be played, or what the outcome of that experience will be."

As a final note on Sicart's definition of game mechanics, he reinterprets the concepts of core, primary, and secondary mechanics previously discussed by other authors. He defines core mechanics as "the game mechanics (repeatedly) used by agents to achieve a systemically rewarded end-game state." There are games, like SimCity, that have no systemically determined end state, but since they possess mechanics oriented towards reaching desired states towards which players focus their efforts, Sicart thinks that it is still possible to speak about core mechanics. Primary mechanics are "core mechanics that can be directly applied to solving challenges that lead to the desired end state (…) are readily available, explained in the early stages of the game, and consistent throughout the game experience." Finally, secondary mechanics are "core mechanics that ease the player's interaction with the game towards reaching the end state (..) "are either available occasionally or require their combination with a primary mechanic in order to be functional."

Sicart's definition will serve as the foundation for any analytical process in this project, as it is considered one of the most comprehensive to date, although it still has many gray areas, such as the presence of mechanics in games beyond the tight goal/reward structure.

2.2. Aesthetics

Based on the information presented so far, it seems evident that the project's theme—representation of mental illness—is not linked to the formal dimension of a game, but rather to its emotional dimension. The primary purpose is to evoke an emotional response in the player, regardless of the ultimate intention, whether it is to raise awareness or simply provide representation.

2.2.1. Definition of aesthetics

When MDA was presented earlier, aesthetics were described as "the desirable emotional responses evoked in the player when interacting with the game system." Hunicke, LeBlanc, and Zubek complement this definition by describing a taxonomy, commonly known as "the eight types of fun," designed to shift away from the generic concepts of "fun" or "gameplay" towards a more specific vocabulary. It consists of eight types of aesthetics, with games often possessing more than one: 1) sensation, game as sense-pleasure; 2) fantasy, game as make-believe; 3) narrative, game as drama; 4) challenge, games as obstacle course; 5) fellowship, game as a social framework; 6) discovery, game as uncharted territory; 7) expression, game as self-discovery; and 8) submission, game as pastime.

However, as noted earlier, this approach is not always by everyone, with DDE distancing itself from the concept of aesthetics and instead focusing on a more player-as-a-subject-oriented one—experience. However, there is another approach mentioned earlier that diverges from the eight types of fun: the 6-11 framework (Dillon, 2011). Dillon acknowledges the insightfulness of the MDA approach but notes that it "provides only a very high-level description of what is happening inside the players' mind at an emotional level." The framework proposes that "games can be so engaging at a subconscious level because they successfully rely on a subset of basic emotions and instincts which are common and deeply rooted in all of us," and it focuses on six emotions (fear, anger, joy / happiness, pride, sadness, and excitement) and eleven instincts (survival—fight or flight—, self-identification, collecting, greed, protection / care / nurture, aggressiveness, revenge, competition, communication, exploration / curiosity, and color appreciation) that are recurrent in psychology.

Dillon states that the idea behind the framework is that "these emotions and instincts interact with each other to build a network or sequence that should end with 'Joy' and/or 'Excitement', so as to provide players with a meaningful and fun experience, " and that the resulting network can be related to game dynamics by realizing that "when different emotions are naturally aroused in the player by the game, these will trigger different instincts that, in turn, will force the player to act in the game, ultimately showing how the whole aesthetics can be linked to actual gameplay and game mechanics." And example of a network can be found in Figure 6.

Figure 6: An emotion-instinct network from applying the 6-11 model to Rovio's Angry Bird
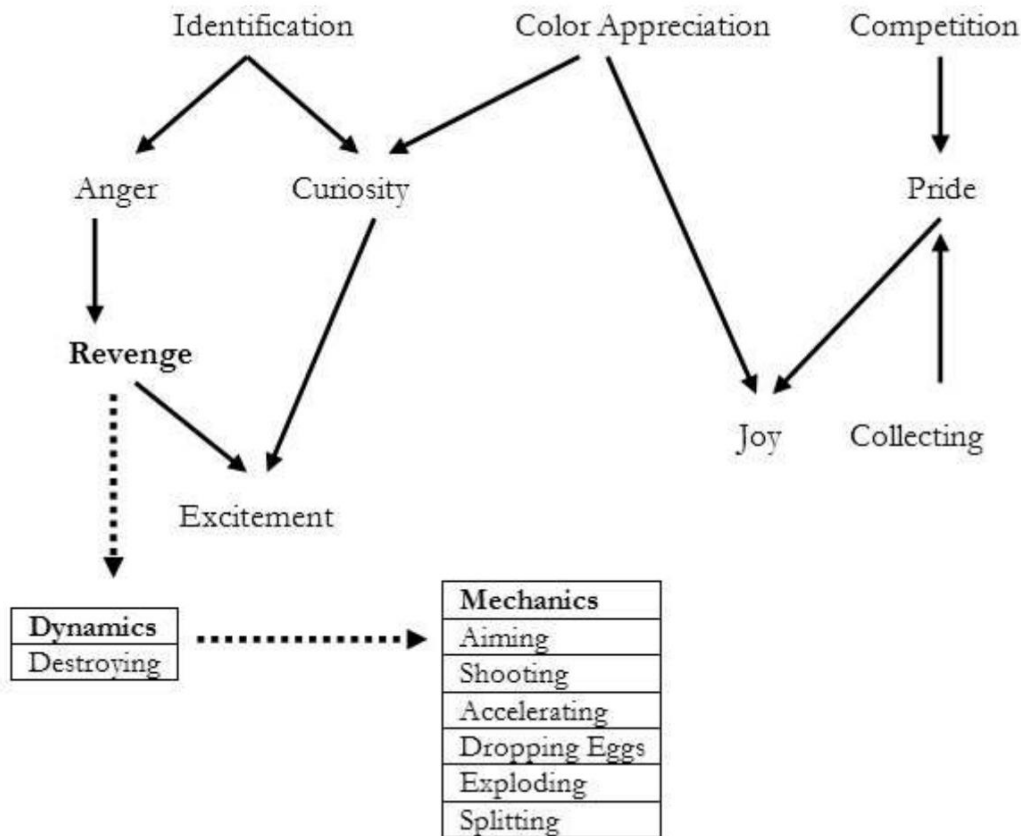
Note: From Dillon, 2011.

Given MDA's continued status as the reference framework, the project will rely on it for further analysis. However, for aesthetics and due to its emotion-centered approach, the 6-11 model may be used in future cases. What's important about aesthetics (or experience, in the case of DDE) is that all of these approaches are based, at least partly, on the emotions games evoke in players. Since the purpose of including a specific demographic group in a game is to evoke an emotional response of any kind (inclusiveness, warmth for those belonging to the group; awareness, self-realization for others), it's correct to say that representations are undoubtedly part of aesthetics.

2.2.2. Mental illness

Now that it has been acknowledged that the representation of certain groups belongs to the aesthetic dimension of a game, a pause is necessary to understand the subject at the heart of the project's theme: mental illness. The project is not intended to serve as a reference work on this topic, nor does the author possess the medical knowledge required for such an endeavor. However, an examination of how authoritative institutions describe mental illness is needed. This exploration is not only fundamental for understanding the concept but also essential for identifying where existing games have succeeded or failed in its representation. Furthermore, it helps establish guidelines to avoid any unfair or harmful portrayals.

The World Health Organization (2022b) defines a mental disorder (synonymous with mental illness) as "a clinically significant disturbance in an individual's cognition, emotional regulation, or behavior," and relates it to the broader term of "mental health conditions," which encompass "mental disorders, psychosocial disabilities, and (other) mental states associated with significant distress, impairment in functioning, or risk of self-harm."

Mental disorders are not uncommon. In the latest *World mental health report* (World Health Organization, 2022a), the WHO indicates that "pre-pandemic, in 2019, an estimated 970 million people in the world were living with a mental disorder, 82% of whom were in LMICs [Low- and Middle-Income Countries]."

The WHO identifies eight groups of predominant mental disorders that are later developed and expanded in depth in the "Mental, behavioral or neurodevelopmental disorders" entry of the ICD-11 (World Health Organization, 2024): anxiety disorders; depression; bipolar disorder; post-traumatic stress disorder (PTSD); schizophrenia; eating disorders; disruptive behavior and dissocial disorders; and neurodevelopmental disorders

A different, yet important institution targeting specifically the United States, the National Institute of Mental Health categorizes mental illness in two great groups (National Institute of Mental Health, 2023). The first one is any mental illness (AMI). "A mental, behavioral, or emotional disorder. AMI can vary in impact, ranging from no impairment to mild, moderate, and even severe impairment." The second one is serious mental illness (SMI). "A mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities."

2.2.3. Dementia

As has just been described, the concept of mental illness encompasses a large number of disorders that affect mental health. Many of these have been represented in video games for years, and some will be used as examples in later sections. However, as stated at the beginning of this text, a particular emphasis on dementia is intended, owing to the author's personal circumstances.

The WHO indicates that "dementia is a term for several diseases that affect memory, thinking, and the ability to perform daily activities" (World Health Organization, 2023), and that it mainly affects older people, with "an estimated 6.9% of adults aged 65 years and over [living] with dementia." (World Health Organization, 2022a). The diseases associated with the dementia syndrome destroy nerve cells and damage the brain, "typically leading to deterioration in cognitive function beyond what might be expected from the usual consequences of biological ageing". The WHO also states that consciousness is not affected, but the impairment in cognitive function is commonly accompanied, and occasionally preceded, by changes in mood, emotional control, behaviour, or motivation. It also highlights the physical, psychological, social and economic impacts it causes, not only for people living with dementia, but also for their carers, families and society at large.

The Alzheimer's Association (Alzheimer's Association, n.d.) adds to this concept by stating that "dementia is a general term for loss of memory, language, problem-solving and other thinking abilities that are severe enough to interfere with daily life," and indicates that Alzheimer's is the most common cause of dementia.

2.2.4. Stigma

Still on the topic of dementia, the WHO (2023) states that "there is often a lack of awareness and understanding of dementia, resulting in stigmatization and barriers to diagnosis and care", but this assertion could be applied to many other mental illnesses as well. The APA (2024) reports that over half of individuals with mental disorders do not receive treatment, often due to fears of discrimination or concerns about negative repercussions such as job loss. Stigma against those with mental illness persist as significant barriers to accessing care, and can lead to negative impacts on the self of individuals with mental illness, like lowered self-esteem (Link et al., 2001).

APA draws from various papers and literature reviews, including Thornicroft et al. (2016), Yanos et at. (2020), and Rössler (2016), to deepen the understanding of stigma related to mental illness. These same sources have been utilized by other institutions, both at international and local levels, such as the Confederación SALUD MENTAL España (Balasch et al., 2016; Federación de Euskadi de Asociaciones de Familiares y Personas con Enfermedad Mental, 2014), to highlight the issue of stigma within their respective contexts.

Among the authors covered in the literature, understanding both the dimensions identified by Schulze and Angermeyer (2003)—interpersonal interaction, public images of mental illness, structural discrimination, and access to social roles—and the components outlined by Link and Phelan (2001)—labelling differences, associating persons with undesirable characteristics, separating "us" from "them," and status loss—is crucial for comprehending the impact of stigma on individuals with mental illness and their communities. Stigmatized individuals not only face reluctance to seek help but also encounter discrimination that restricts their access to societal roles and opportunities. This discrimination can be exacerbated by government and private organizational policies, leading individuals to even internalize blame for their condition.

Due to the negative impact of stigma, researches began exploring methods to reduce it. One approach involved using mass media, where Clement et al. (2013) demonstrated its potential to reduce prejudice against mental illness. However, their research did not consider entertainment media. When other authors included entertainment in their studies, results were mixed. Ritterfield and Jin (2006) found that sensitive portrayals of mental illness helped reduce stigma, while Rubenking and Bracken (2015) discovered that stigmatizing portrayals could result in even greater stigma.

2.2.5. Representation of mental illness in video games

Unfortunately, video games, like other forms of mass media entertainment, often portray mental illness inaccurately and harmfully. According to Shapiro & Rotter (2016), individuals with mental illness are

typically depicted as violent, criminal, or dangerous in mass media. Shapiro & Rotter used six stereotypes of mental illness in cinema (the rebellious free spirit, the homicidal maniac, the female patient as seductress, the enlightened member of society, the narcissistic parasite, and the zoo specimen) proposed by Hyler, Gabbard, and Schneider (1991) to analyze the fifty highest-selling video games from 2011 to 2013. They found that 72.1% of characters with mental illness in these games were depicted as violent.

A more recent study, carried out by Ferrari et al. (2019), analyzed 789 games made available between January 2016 and June 2017 and brought even more devastating results: 97% of the games reviewed portrayed mental illness in negative, misleading, and problematic ways (violence, fear, insanity, etc.). Ferrari et al. concluded their study by stating that "the video game industry and its consumers need to be educated about the potential negative impact of ill-conceived messages about mental illness and how these stereotypes can drive discriminatory behavior […] much stands to be gained from researchers and clinicians partnering with the gaming industry to create games that can contain and promote positive, nuanced, realistic, and compelling messages about mental illness."

Indeed, given the influential nature of entertainment media, video games could potentially be a powerful tool for reducing stigma. Ferchaud et al. (2020) argue that while previous research has shown that contact—whether face-to-face or not—with individuals with mental illness can help reduce stigma, video games offer a unique opportunity to deepen this contact by allowing players to directly control characters with mental illness. In their study, Ferchaud et al. propose and validate three hypotheses based on the concepts of transportation and identification: 1) playing a video game rather than watching leads to an increase in transportation; 2) transportation positively predicts identification; 3a) identification negatively predicts stereotyping toward those with mental illness; and 3b) identification negatively predicts the desire for social distance from those with mental illness.

The concept of transportation occurs when a reader, viewer or player becomes fully absorbed in a narrative, and disengages from the real world to focus on the world presented by the story. This absorption can lead to positive responses to embedded persuasive messages within the narrative by suppressing counterarguing against these messages (Slater & Rouner, 2002). Additionally, transportation into a narrative can encourage audience members to reevaluate their current perspectives and schemas of stigmatized groups by exposing them to related events (Chung & Slater, 2013). Video games facilitate transportation by allowing players to explore and make decisions in the game world, embody characters, and adopt their goals as their own—a process known as embodied cognition (Gee, 2008). Players use information from the narrative and the game world to understand and explain their character's actions within the virtual environment. Ferchaud et al. also emphasize that transportation only occurs when there is a narrative present, and players actively control the actions of their character.

Identification, as discussed by Cohen (2001), occurs when individuals take on the thoughts and perspectives of media characters, expanding their self-concept to include the character's traits. In interactive media, such as video games, players control characters closely, feeling a strong connection

and viewing themselves as one entity with the character—this is called monadic relationship (Klimmt et al., 2009). This differs from non-interactive media, where users maintain a distinct view of characters—dyadic relationship. Taking on a stigmatized character's perspective humanizes the group and predicts social acceptance (Chung & Slater, 2013). Identification leads to acceptance of story-related beliefs by reducing counter-arguing (Moyer-Gusé, 2008) and increases empathy for real-world groups.

The findings from the study by Ferchaud et al. represent a potential pathway for improvement across various forms of media, especially in video games. It also opens the door for new research within the field of game studies and beyond. Even though there is abundant literature on mental health in video games, the issue of representation remains relatively underrepresented. Anderson & Orme (2022) conducted an analysis of articles published by popular English-language games journalism websites (IGN, PCGamer, Polygon, and Kotaku) from 2013 to 2021. They found that roughly thirty articles discussed the portrayal of mental illness, and other fourteen offered critiques of existing portrayals. The rest of the articles addressed indirectly related issues, such as burnout and crush, or using games for mental health purposes. Anderson and Orme conclude their study by stating that "[…] visibility is key: visibility of portrayals of characters with mental illnesses, visibility of the unhealthy work conditions of creative professionals in the games industry, and visibility of the excellent work advocacy groups".

In a previous text, Anderson (2020) highlighter the complicated relationship between game studies and mental illness, because of the former "often targeting—and sometimes supporting—the stigmatizing relationships between video games and players' unhealthy social and psychological behaviors." Anderson suggests that researchers, game designers, players, and the public should view games as a method capable of improving portrayals of mental illness. Despite acknowledging that depictions of lived experiences will always be reductive and metaphorical, Anderson emphasizes the importance of researchers providing examples and best practices to guide more innovative and beneficial portrayals in entertainment and media.

As a final addition to the discussion on the representation of mental illness, it's worth mentioning the 3D dimensional model for categorizing mental illness in digital games outlined by Dunlap & Kowert (2022). According to the model, the representations of mental illness in digital games can be categorized along a three-dimensional spectrum (Figure 7). One-dimensional portrayals are considered "decorative", since mental illness is referenced broadly but is not essential to character, story, or environment. An example is the psychos from Borderlands (Gearbox Software, 2009), whose names imply mental illness without further explanation. Two-dimensional portrayals have specific psychopathological features that are integral to the character but lack depth or nuance in representation. An example is Kefka from Final Fantasy VI (Squaresoft, 1994), whose "insanity" is a defining trait without further exploration. Finally, three-dimensional portrayals are described as "dimensional", and provide depth, dimensionality, and alternative perspectives. An example is

Hellblade: Senua's Sacrifice (Ninja Theory, 2017) where the main character's mental illness influences gameplay mechanics, narrative, sound design, and the player's emotional experience.

Figure 7: Three dimensions of mental health in digital games
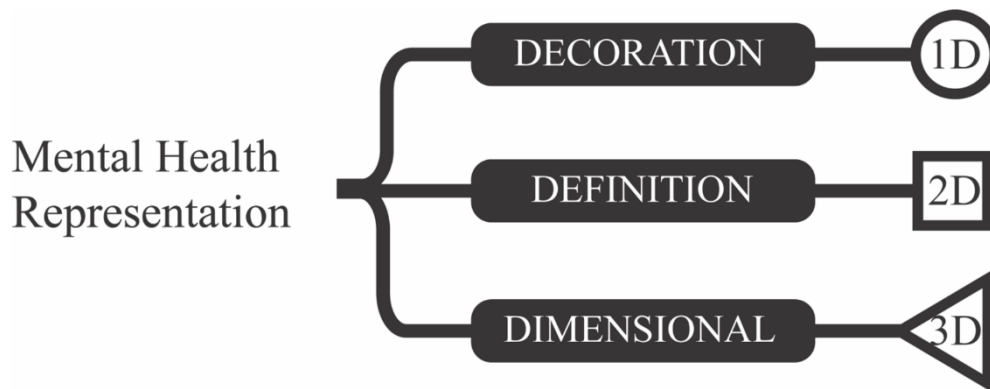
Note: From Dunlap & Kowert, 2022.

2.2.6. Representation of older adults in video games

Given that dementia is the primary focus of discussing mental illness in this project and considering that this pathology predominantly affects older adults—as previously stated—it seems only natural to conduct some research, even if brief, on the representation of this particular demographic group.

The term "ageism," coined by Robert Butler (1980), refers to negative attitudes toward older adults, including prejudices toward aging and discriminatory practices in employment and other social roles. Butler identified three aspects of ageism: prejudicial attitudes, discriminatory practices, and institutional policies that perpetuate stereotypic beliefs and limit opportunities for older individuals. These aspects parallel the types of stigma identified by Schulze and Angermeyer (2003) regarding mental illness, which include public images, structural discrimination, and access to social roles.

Older adults in mass media often receive underrepresentation and minor roles, but their portrayal generally highlights positive personality traits, especially when depicted as grandfathers or caring figures (Robinson et al., 2007; Robinson & Anderson, 2006). However, these depictions can also reinforce stereotypes about their physical and cognitive abilities, presenting them as vulnerable to complex concepts such as financial and legal matters (M. M. Lee et al., 2007). Unlike mental illness, the discourse on ageism has shifted from a negative focus to a more positive one, emphasizing self-representation and identification within aging studies (S. R. Levy & Macdonald, 2016).

Video games reflect similar trends to other forms of mass media when it comes to the representation of older adults. Existing literature primarily focuses on the positive effects of video games for older adults, with limited attention to actual representation. Marta Fernández Ruiz (2021) discusses intergenerational design to enhance inclusion and representation, noting that prevailing narratives and mechanics often portray older adults in terms of loss, loneliness, and conditions like dementia.

On a different note, Carrasco et al. (2018) studied how older adults self-represent when playing digital games and found varied self-representations, from reflecting on lost aspects of their past to embracing their current selves. This may relate to findings on self-perception effects (B. R. Levy et al., 2002) and subjective aging discordances (Rupprecht & Lang, 2020).

Similar to mental illness, Fernández Ruiz and Carrasco et al. suggest that game designers should embrace this diversity to improve representation of older characters in games and enhance their inclusion, indicating that current representation is insufficient.

2.3. Story-driven games and minigames

At this stage of the research, all aspects of the main issue that can be examined individually have been addressed. Even without focusing on the project's main theme, the disconnect between the formal and emotional dimensions persists. This broad concept would exceed the scope of this project if explored comprehensively. However, incorporating the representation of mental illness into the equation further expands the concept. This is why a specific focus was defined for the project. Before delving into the literature on the main issue, it is essential to explore the concepts of story-driven games and minigames.

2.3.1. A note on genres

The project does not aim to delve into the various proposals for genre classification. This topic not only exceeds the project's scope but also involves a complex area that can generate significant debate and warrant a separate project of its own.

A custom list of genre primitives by gameplay (**Table 4**) has been developed using references from works by Lee et al. (2014), Heintz and Law (2015), Arsenault (2009), and Vargas-Iglesias (2018/2020). These primitives or macro-genres serve as foundational pillars for constructing other genres. It is important to note that they are based on a gameplay-focused approach, but alternative approaches such as style or purpose could result in different genre lists. The inclusion of mixed-approach lists is a common challenge in current genre typology proposals.

Table 4: Video game genre primitives by gameplay

Action	Simulation
Adventure	Sports
Puzzle	Strategy
Role-playing	

Note: Own work.

Additionally, custom definitions for various game genre terms (**Table 5**) have been developed based on the sources mentioned, as well as definitions from other media or related fields.

Table 5: List of genre-relate terms

Genre	A category of games characterized by similar features, which may include aspects related to gameplay, style, purpose, or other defining characteristics

Subgenre	A more specific category within a genre, typically distinguished by a particular characteristic shared by a significant number of games within that genre.
Macro-genre	A genre that contains other genres, typically defined by a distinct set of characteristics that can encompass multiple subgenres or related genres.
Blended genre	A subgenre that results from the combination or fusion of multiple distinct genres
Multi-genre / cross-genre game	A game that incorporates elements from multiple distinct genres or subgenres, blending them together into a cohesive experience

Note: Own work.

2.3.2. Story-driven games and narrative

The initial concept under investigation concerning game genres, as per the project's scope, diverges from the list of primitives outlined in the previous section. Instead, it pertains to a macro-genre defined by an alternative approach that can encompass games from various gameplay-focused genres.

Story-driven games, also known as narrative games or narrativist games, prioritize narrative and storytelling elements. They integrate narrative components into game rules, mechanics, and player actions to provide players with a highly interactive and immersive experience. In these games, players have greater freedom to shape the story through their actions, making their choices impactful on the overall narrative.

Although easy to understand at first glance, this definition introduces a concept that, while mentioned earlier, has not been defined until this point—narrative. Narrative is one of the most prominent and widely discussed topics in game development, game studies, and related fields. Over the past few decades, the role of narrative in video games has become increasingly significant, leading to extensive academic research, critical analysis, and practical application within the gaming industry. But what is it exactly, and how does it differ from story?

According to Hartmut Koenitz (2018), a generally accepted definition of "narrative" (and the related term "story") seems elusive for the time being, and scholars and professionals working on video game narrative are encouraged to make their respective definitions and underlying assumptions explicit. Koenitz highlights a lack of shared understanding of narrative, influenced by the historical debate between narratology and ludology. This foundational debate in game studies centers on the assumption of a dichotomy between game and narrative. Compiling and comparing definitions of narrative in video games from various authors, as was previously done with mechanics, could present challenges without examining the ideas put forth by the narratology and ludology schools of thought within video game studies. However, it's worth noting that one of the prominent figures in this field, Espen Aarseth, discourages focusing on this "war," as it has become a cliché used by newcomers and perpetuates the misconception of a significant conflict between these two groups (Aarseth, 2019).

Regardless of whether there was a conflict or not, the discussion about the potential for narrative in game studies resulted in numerous publications that shed light on the historical hesitation surrounding this topic, which is now widely accepted. These publications also introduced concepts that have become integral to the discourse among game scholars. Beginning with Janet Murray's influential work *Hamlet on the Holodeck. The Future of Narrative in Cyberspace* (Murray, 1997/2001), the

narrative-centric approach to video games, emphasizing storytelling over mere entertainment, was championed by authors like Henry Jenkins (2004) or Marie-Laure Ryan (2001). On the other hand, proponents of the perspective that games should be studied based on their unique characteristics compared to other media include authors such as Gonzalo Frasca (1999, 2003), Jesper Juul (1998/2001), Espen Aarseth (2001) or Markku Eskelinen (2001).

Despite the consensus over the importance of narrative in game analysis, scholars have not reached a definitive agreement on its precise role. Many authors have contested the outright rejection of narratology and have proposed alternative frameworks for integrating narrative into game studies. For example, Gabriele Ferri's concept of "epistemological common ground" (Ferri, 2015) and Clara Fernández-Vara's "indexical storytelling" (Fernández-Vara, 2011) represent attempts to reconcile narrative with the unique characteristics of the game.

Authors such as Celia Pearce (2004) and Salen an Zimmermann's (2003) propose innovative approaches that reframe narrative within current analytical paradigms. Meanwhile, scholars like Calleja (2013) and Koenitz (2015) advocate for the development of a distinct theory of video game narrative. Calleja departs from traditional narrative concepts, advocating for a reconceptualization that incorporates the cybernetic nature of games and the experiential dimension of human interaction, alongside the formal properties of the game. Koenitz introduces the SPP (System, Process, Product) model, which links the digital artifact, user interaction, and resulting output to bridge the gap between artifact and instantiated narrative. This approach relocates the narratological category of "story" with specific instantiations (products) and provides analytical focus on the process.

With a multitude of conflicting yet complementary views, it is understandable that there is no consensus on the definition of "narrative", let alone "story" or other related terms. As a starting point, the text endorses the definition provided by David Herman (2002/2004), rooted in cognitive narratology, which views narrative as "a forgiving, flexible cognitive frame for constructing, communicating, and reconstructing mentally projected worlds."

2.3.3. Adventure games

Ernest Rollings and Andew Adams (2003) define an adventure game as "an interactive story about a character who is controlled by the player." This definition represents a direct and practical implementation of the concept of a story-driven game described in the previous section. However, as Rollings and Adams point out, "the way in which interactivity and narrative are handled varies considerably from game to game."

Rollings and Adams characterize adventure games by their story-driven and character-driven nature, emphasizing narrative and character development. These games encourage exploration, allowing players to discover the game world and narrative through interactive exploration. Additionally, adventure games incorporate puzzle-solving elements, requiring players to use cognitive skills to overcome challenges and progress through the story.

The origin of the genre can be traced back to the 1970 text-only game *Colossal Cave Adventure* (Crowther, 1976). In this game, players assumed the role of an explorer searching for treasures in a perilous cave. What set Adventure apart from previous games was its unique feature allowing players to type any commands they wanted, prompting the computer to respond based on a limited set of keywords (Figure 8). This capability provided players with a "real illusion of freedom"—a defining characteristic that continues to be relevant in adventure games to this day.

Figure 8: A screenshot from Colossal Cave Adventure.

```
.RUN ADV11

WELCOME TO ADVENTURE!!  WOULD YOU LIKE INSTRUCTIONS?


YES
SOMEWHERE NEARBY IS COLOSSAL CAVE, WHERE OTHERS HAVE FOUND
FORTUNES IN TREASURE AND GOLD, THOUGH IT IS RUMORED
THAT SOME WHO ENTER ARE NEVER SEEN AGAIN. MAGIC IS SAID
TO WORK IN THE CAVE.  I WILL BE YOUR EYES AND HANDS. DIRECT
ME WITH COMMANDS OF 1 OR 2 WORDS.
(ERRORS, SUGGESTIONS, COMPLAINTS TO CROWTHER)
(IF STUCK TYPE HELP FOR SOME HINTS)


YOU ARE STANDING AT THE END OF A ROAD BEFORE A SMALL BRICK
BUILDING . AROUND YOU IS A FOREST. A SMALL
STREAM FLOWS OUT OF THE BUILDING AND DOWN A GULLY.


GO IN
YOU ARE INSIDE A BUILDING, A WELL HOUSE FOR A LARGE SPRING.


THERE ARE SOME KEYS ON THE GROUND HERE.


THERE IS A SHINY BRASS LAMP NEARBY.


THERE IS FOOD HERE.


THERE IS A BOTTLE OF WATER HERE.
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Note: From Wikimedia.

Following the success of Adventure, numerous games emerged, evolving alongside personal computer technology. As computers gained graphical capabilities, there was a surge in adventure games, marking what many consider the golden era of the genre dominated by LucasArts and Sierra. Iconic games like *The Secret of Monkey Island* (LucasFilm Games, 1990) emerged during this period. The advent of 3D graphics further expanded possibilities for developers, paving the way for new genres and innovative game experiences.

In this context, the adventure genre encompasses several subgenres, distinguished by gameplay characteristics and the narrative's prominence relative to other elements. A custom list based on the aforementioned sources can be found in **Table 6**.

Table 6: List of adventure games subgenres

Text adventure games	Narrative-focused games where players interact with the story through text-based commands. Players type commands to explore environments, solve puzzles, and

	progress through branching storylines based on their choices. Also known as "interactive fiction". Examples include *Colossal Cave Adventure* (Crowther, 1976) and *Zork* (Infocom, 1977).
Point-and-click adventure games	Games characterized by their use of mouse-driven mechanics to interact with the game world. Players navigate through detailed environments, solve puzzles, and advance the story by interacting with objects and characters using point-and-click controls. Examples include *The Secret of Monkey Island* (LucasFilm Games, 1990) and *Simon the Sorcerer* (Adventure Soft, 1993).
Puzzle adventure games	Games where players are challenged with solving puzzles and using critical thinking to progress through the game's narrative, often blending narrative elements with intricate puzzle design. Examples include *Myst* (Cyan, 1993) and *The Talos Principle* (Croteam, 2014).
Narrative adventure games	Games placing a strong emphasis on storytelling and character development, offering players meaningful choices and a high degree of narrative control. Examples include *The Walking Dead* (Telltale Games, 2012) and *The Stanley Parable* (Galactic Cafe, 2013).
Visual novels	Games combining text-based storytelling with static or minimally animated visuals to convey intricate narratives. Players engage with the story through decision-making, influencing the plot's progression and character interactions. Examples include *Policenauts* (Konami, 1994) and *Hotel Dusk: Room 215* (Cing, 2007).
Walking simulators	A more recent addition to the adventure genre, walking simulators prioritize exploration and environmental storytelling over traditional gameplay mechanics, providing players with immersive, narrative-driven experiences focused on atmosphere and exploration. Examples include *Dear Esther* (The Chinese Room, 2012) and *The Vanishing of Ethan Carter* (The Astronauts, 2014).

Note: Own work.

As adventure games evolved, developers began exploring combinations with other genres, giving rise not only to new cross-genre games like Multi-User Dungeons (MUDs) but also to entirely new genres that remain prominent in genre ontologies today. One such example is the Action/Adventure genre, which shares many characteristics with traditional adventure games, including exploration, puzzle-solving, and a strong narrative focus, while also emphasizing action-oriented gameplay. Games like Zelda-like and *metroidvania* titles exemplify this fusion of adventure and action mechanics, blending storytelling with fast-paced action sequences to create engaging gameplay experiences.

2.3.4. Minigames

Although numerous sources discuss the potential applications of minigames across various areas or fields, literature specifically focused on defining the concept and exploring its fundamental aspects is relatively scarce. Most sources found on major search engines predominantly focus on serious minigames, treating them as independent entities rather than as instances of games nested within other games. Without discarding the possibility that both approaches may align with different conceptions, it remains important to define the nature of minigames within any implementation.

In the independent-entity approach, various definitions highlight the distinctive characteristics of minigames, emphasizing their brevity, simplicity, and minimalist design. According to Devish et al.

(2017), minigames are "short games that focus on a single concept [of learning], with basic rules that are easy to play." Similarly, Frazer et al. (2007) describe minigames as "short, self-contained games, usually based around a single principle, whether ludic or pedagogical."

Building on prior literature, De Jans et al. (2017) offer a comprehensive view of minigames, portraying them as "brief games that are easy to learn and clearly distinct from regular video games." They explain that minigames feature basic and familiar game mechanics, allowing players to quickly master them within a short period. Additionally, Cao (2016) highlights the appeal of "endless mobile games" due to their "unique characteristics, including very short play session iterations and minimalist design."

These sources collectively categorize minigames as a distinct type or even a genre of game, setting them apart from "regular" games by emphasizing simplicity over the complexity typically found in other genres. But if minigames are considered a genre, does that mean their implementation within other games necessarily categorizes the 'parent' game as cross-genre?

The non-authoritative source TV Tropes (n.d.) describes the concept of minigames within other games as one of the older tropes in video games. It provides an accurate definition, stating that a minigame is "a specific type of highly temporary unexpected gameplay change in a video game" introduced to "break up the tedium" of repetitive gameplay, often without "genre-shifting to something different from the original game's genre".

In a more comprehensive analysis, Leon Xiao (2023) reviews existing literature and identifies three approaches to defining minigames: 1) as something less than a "proper" game, denoting short and mechanically simple games proposed or implemented for a specific (serious game) purpose; 2) as a "small" and "trivial" game, often referring to existing video games subjectively considered simpler than others; and 3) as incorporated elements of an overarching video game, highlighting the concept of games within games.

Kominiarczuk (2017) explores the simulation capabilities of video games, as underscored by Aarseth (2012), and posits that minigames can be interpreted in different ways depending on context. They can be small, low-complexity games integrated within larger productions or distributed independently in packages of several to several hundred items—either as stand-alone entities or interconnected through an overarching structure. Kominiarczuk also discusses how minigames are sometimes likened to events and sidequests. Additionally, he reviews existing literature on minigames, highlighting the self-contained nature described by Tavassolian et al. (2011) and the treatment of games within games as a metareferential procedure by Backe (2018), using the concept of mise-en-abyme.

Kominiarczuk further distinguishes between nested minigames and accompanying minigames, using The Witcher 3 (CD Projekt, 2015) as an example. Most minigames in the game, such as fist duels and horse races, are nested within the diegetic world as secondary, trivial activities. Although they have separate mechanics and controls, their interface remains part of the game's world. In contrast, the card game Gwent occupies a prominent position within the game's structure: it has a dedicated section in the

main menu, its own set of trophies, and was eventually released as a standalone game. Moreover, Gwent extends beyond the ludofictional world by incorporating photorealistic depictions of characters and iconography from other card games. Kominiarczuk rejects the notions of deliberate emersion or metalepsis, instead referring to metonymy and the paradoxical relationship between the main game, which serves as a framework for the nested card game, and Gwent, which remains intertwined with the context of the parent game.

Seiwald (2019) revolves around the concept of "gameness" (a game must contain elements that suggest to the player that it is a game) and offers a similar differentiation by talking about Chinese-box structures, meaning that a game contains a game that is separate from the main game, and *mise-en-abyme* structures, which is a term denoting the mirroring of characteristics of the embedding game. Seiwald also distinguishes between games that are not needed to progress in the macrogame, and minigames that are an inherent part of the macrogame. In the first case, minigames constitute a second fictional level in the embedding game and indirectly emphasize its gameness. Minigames in this category often follow very simple structures and are approached by players in an attitude of a game, being allowed to observe the act of playing from a position external to it. In the second case, due to their tight connection to the embedding game, minigames emphasize differently the existence of fictional levels in it and the illusion of the fictive world presented by the game is strengthened, inviting the player to participate in the make-believe.

2.4. Bridging the narrative gap

Now that all the separate pieces of the puzzle, encompassing the various subjects treated within the scope of the project, have been defined, it is time to assemble them. This assembly begins with the literature concerning the project's main issue and extends to the existing research that addresses the potential solutions posited through the project's questions and goals.

2.4.1. Disconnect between mechanics and theme

The primary focus of the project is to bridge the gap between mechanics and the theme of mental illness, specifically in terms of representation. While narrative has been indirectly referenced in the project, it has not been directly tied to the main objectives. However, separating narrative from the emotional dimension of the theme is challenging, especially considering scholars like Pearce (2004), Salen & Zimmerman (2003), and the authors of the DDE (Walk et al., 2017) who view narrative as integral to the experiential dimension in games. The theme serves as the central element of the narrative, conveying the designer's intended idea to the player. Therefore, separating theme from narrative is considered unthinkable, as they are deeply intertwined in shaping the player's experience and understanding of the game. In games featuring minorities or vulnerable groups, narrative serves as a crucial tool for representing and portraying these characters, encompassing their visual appearance, context, behavior, and interactions with other characters.

Consequently, discussions about the disconnect between mechanics and the representation of mental illness often point to a broader issue of disconnect between gameplay and narrative. In extreme cases, this disconnect can be so pronounced that mechanics are unrelated not only to the narrative but also to the overall story or setting. For example, consider a story-driven game focusing on the life of an individual with a mental illness that unexpectedly includes Tetris-like puzzle levels between dramatic scenes. Seiwald's exploration of the "gameness" concept (Seiwald, 2019) might prompt players to view these levels as distinct games within the game, but this approach could weaken the fictive world of the overarching game and cause players to become disengaged—or rather emerged—from the narrative.

The issue of disconnection brings attention back to the debate between gameplay and narrative, along with its key figures, and to the concept of transportation that was highlighted in discussions about representation and portrayal, leading to the inevitable concepts of immersion and presence (Pianzola et al., 2021). Both cognitive states depend on multifaceted factors. For instance, achieving a state of presence requires a combination of physical, emotional, and narrative conditions to align (Takatalo et al., 2010). If players become disengaged due to a disconnect between gameplay and narrative, neither immersion nor presence can fully occur.

When examining approaches to address the disconnect between gameplay and narrative, two concepts stand out prominently—reciprocity and balance. Marak et al. (2019) propose that "digital game texts are capable not only of telling stories but also of delivering experiences to their audiences in ways that until very recently were inconceivable." They emphasize that the key element contributing to this "experiencemaking" is game mechanics. They argue that reducing a game text solely to a narrative overlooks the active participation of the player and the systemic nature of games. Building upon Bizzocchi and Tanenbaum's work (2011), Marak et al. suggest that a digital game text can be understood as a gestalt of form and content, representing the medium chosen and the intended message of the creators for the player. The decisions made by game creators significantly influence the final experience they aim to create for players. Therefore, even when games convey stories, they do so in a manner unique to games, allowing players to make choices—either directly through mechanics or by exercising agency.

On balance, Marak et al. (2019) argue that games primarily oriented towards fulfilling hedonic (pleasure-oriented) expectations of players often feature simpler narratives. In contrast, games aimed at addressing eudaimonic (ethics-oriented) needs tend to incorporate longer or more complex narrative designs. They note that sometimes, "the eudaimonic potential of a game with a complex story can be realized through the mechanics chosen by the developer," emphasizing that players' eudaimonic expectations are influenced more by mechanics than by the story itself. Game mechanics serve as a powerful extension of the engaging narrative experience and, alongside elements traditionally associated with narratives, contribute to the overall game experience. The feedback players receive in response to their actions and the manner in which this feedback is conveyed through visual, auditory, and sometimes haptic cues are all integral parts of game mechanics. Therefore, the ludic design

adopted by developers affects how the narrative content of the game is expressed and, to some extent, the content that can be effectively conveyed.

Silva et al. (2019) also discuss balance in the context of dramatic tension (created by engaging the interest of the audience or player in the characters and events of the story) and gameplay tension (related to the player's actions to overcome challenges in the game). According to Adams (2013), there are two key differences between these tensions—repetition and randomness. While gameplay tension can incorporate both, dramatic tension typically does not. Adams emphasizes that a crucial aspect of interactive narrative is to maintain a continuous sense of progress and a feeling that events in the game world are driven by motives related to the plot, not by chance or accident. Therefore, to introduce dramatic novelty, video game designers must avoid excessive repetition and randomness.

Given its significance, numerous scholars have endeavored to propose frameworks for analyzing the relationship between gameplay and narrative. Cardona-Rivera et al. (2020) propose that goals serve as a crucial link between story and gameplay elements in games. They introduce an analytical framework that explains and connects the relationship between goal structures in games and their narrative counterparts. The framework distinguishes between ludological and narrative goals.

Ludological goals are the in-game objectives or conditions designed for players to achieve success. These goals include ultimate goals, which are overarching objectives common to all games (such as winning, finishing, or prolonging gameplay), and imperative goals, which are more specific and concrete (such as choosing, configuring, solving, etc.). Narrative goals involve the interpretation of ludological goals, where meaning emerges from the player's actions or inactions in pursuit of these goals and the resulting feedback from the game environment.

Figure 9: The parallel goals hierarchy of Super Mario Bros
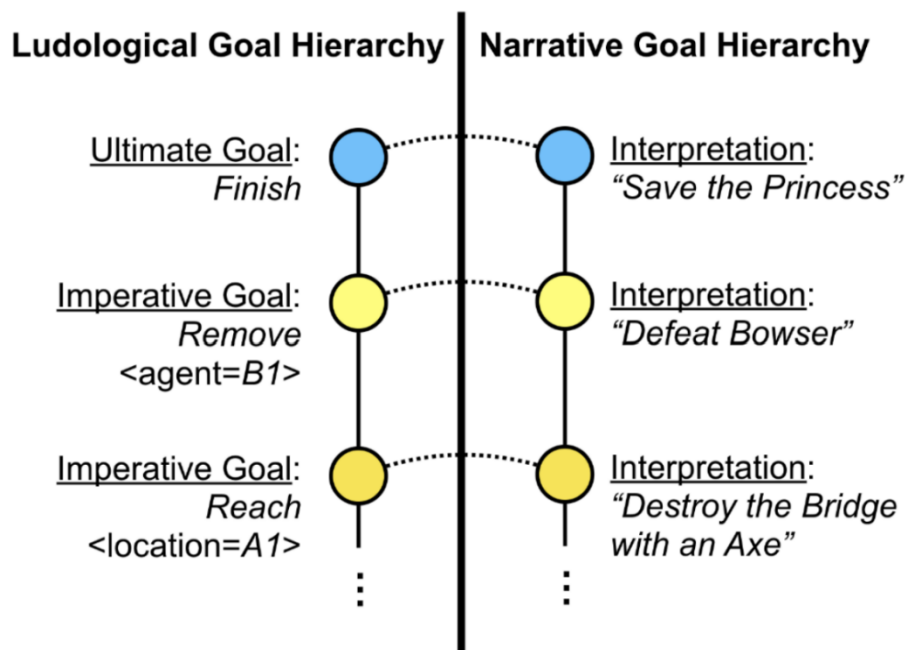
Note: From Cardona-Rivera et al., 2020

The model proposes that both ludological and narrative goals are organized in a parallel hierarchy (Figure 9), with ultimate goals at the top, imperative goals defining the levels, and specific gameplay moments at the base. Each goal can be analyzed and mapped to its corresponding element on the other side of the hierarchy.

Additionally, the hierarchy implies a causal structure within the narrative experienced by the player. Trabasso and Sperry's (1985) four senses of causation—enablement, physical, motivational, and psychological—are considered to describe different types of causal relations within this narrative framework.

Ferguson et al. (2019) introduced the Storyline Scaffolding Tool to address potential mismatches between story and gameplay, primarily focusing on educational games but applicable to other narrative-driven game types. This tool facilitates the simultaneous establishment of the game and its narrative, physically linking them to assess how story information is conveyed in gameplay.

The tool features a graphical user interface that displays both story and gameplay graphs as node trees (Figure 10), illustrating each node along with its links, dependencies, and children. By representing both the story and gameplay graphs in this way and showing links between them, developers can visualize and create connections between narrative elements and gameplay mechanics.

The Storyline Scaffolding Tool allows for a comprehensive evaluation of how completely the story is integrated into the gameplay layer. It enables quantitative analysis to determine the extent to which story elements are represented by corresponding game elements, providing valuable insights into narrative-gameplay coherence.

Figure 10: Framework of the Storyline Scaffolding Tool
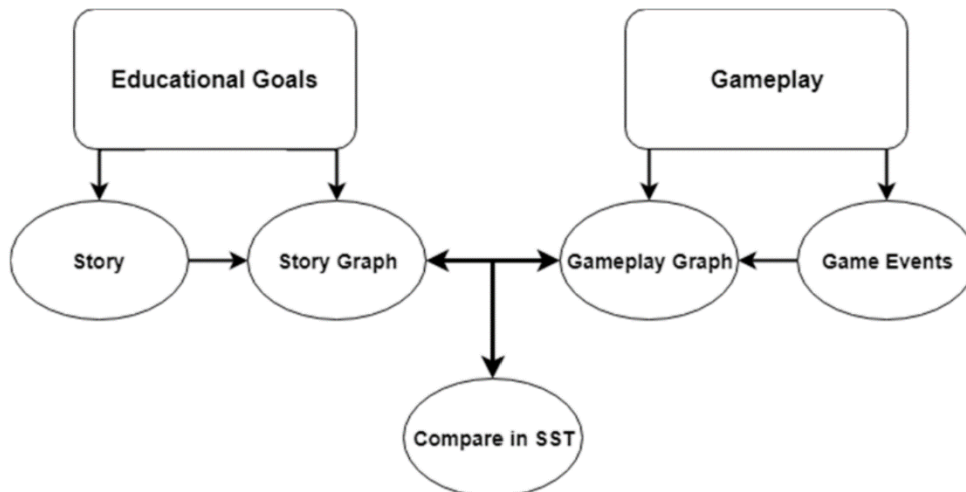
Note: From Ferguson et al., 2019

2.4.2. A quick stance on ludonarrative dissonance

The concept of ludonarrative dissonance, initially introduced by Hocking (2007), was intentionally omitted from the previous discussion as it pertains to a distinct issue. Ludonarrative dissonance

presupposes the existence of two narratives within a game—one conveyed through non-interactive elements and the other through interactive elements—and arises when these narratives conflict with each other and players engage in actions that are not believably aligned with the player character's goals and values (Chew & Mitchell, 2020). Hocking illustrates this concept using BioShock (2K Boston, 2017) as an example, where the game's themes of Randian objectivism and free will allow players to decide the fate of Little Sisters based on gameplay, but the story forces alignment with a character who represents the opposite choice.

As the term ludonarrative dissonance gained popularity among scholars and specialized media, concepts such as ludonarrative resonance (Brice, 2011) and harmony (Pynenburg, 2012) were coined to represent the opposite phenomenon. According to Chew & Mitchell (2020), it's not sufficient for gameplay interactions to simply not interfere with the storyline; rather, they should actively contribute to enhancing the player's experience of the story or game. Building on this, Pynenburg (2012) argues that a game with narrative and mechanics working in harmony enables players to sustain a flow state and immersion more effectively. This last claim should resonate, as it essentially encapsulates the conclusion of the previous section. Ludonarrative dissonance, although distinct in nature, arises from the conflict between gameplay and narrative.

While not the primary focus of this project, it's worth noting that given the disassociation from reality often associated with many mental illnesses, particularly senile dementia, concepts such as "emersion" and "purposeful ludonarrative game design" (Seraphine, 2016) could prove useful for introducing new gameplay incentives in the prototype under development by disrupting familiar player mechanics.

2.5. Using minigames as a vehicle for story

Pérez-Colado et al. (2021) claim that, "among the different type of games, story-driven games offer a good balance between simplicity and flexibility, as they allow players to play roles and perform meaningful tasks in an environment not excessively expensive to create, but rich enough to achieve immersion." They highlight the particular possibilities of the point and click subgenre because of their usual character-centered scope, and the interactions that allow players apply their knowledge and learn from their mistakes. They also warn about the limitations of narrative mechanics, like their unsuitability for the development of other cognitive or physical skills, and propose an extension model based on the integration of minigames in story-driven games to enrich them with other mechanics, an approach that is particularly aligned with the objectives of this project. However, the publication of Pérez-Collado et al. provides a technical framework for easing the integration and reutilization of minigames within adventure games, but does not address the role of minigames in the narrative.

As a conclusion to the research leading to this point, this absence does not pose a problem. The predominant conceptualization of minigames as games within games (Kominiarczuk, 2017) implies that they possess their own inherent "gameness" (Seiwald, 2019) and are subject to the same principles as any other game discussed in this text. Because minigames can have distinct rules and mechanics

compared to their embedding games, it is imperative for game designers implementing minigames to adopt a *mise-en-abyme* approach (Backe, 2018) and ensure that the balance between gameplay and narrative (Marak et al., 2019; Silva et al., 2019) is not disrupted, preserving the potential harmony achieved by the overarching game.

3. Market Analysis

This section presents a comprehensive market analysis that integrates vital elements for understanding the project's context. The analysis draws upon insights derived from the theoretical framework, the state of the art, target audience considerations, and a SWOT analysis. This multifaceted approach allows for exploring the broader paradigm that influences the development and reception of the project.

3.1. State of the Art

While literature offers valuable insights into the concepts addressed in this project, a deeper understanding can be gained by reviewing real-world case studies—in this context, existing video games. This section examines video games relevant to the project's theme, focusing on examples illustrating the identified issues and potential solutions.

3.1.1. Hellblade: Senua's Sacrifice

Although concepts like trauma or psychosis are outside the scope of this project's and haven't been researched in the theoretical framework, discussing mental illness in video games without referencing *Hellblade: Senua's Sacrifice* would be incomplete. This game is frequently cited in recent sources as an exemplar of representation, showcasing both positive and negative perspectives on the portrayal of mental illness.

Hellblade: Senua's Sacrifice (Ninja Theory, 2017) (Figure 11), is an acclaimed 2017 third-person action-adventure game developed and published by British studio Ninja Theory. Set in a world inspired by Celtic and Norse lore and history, Hellblade puts players in control of Senua, a Pict warrior, on a quest to descend into Helheim to recover the soul of her loved one from the goddess Hela.

Figure 11: A screenshot from Hellblade: Senua's Sacrifice

Note: From Steam

What sets *Hellblade* apart is its portrayal of Senua's experiences with psychosis. Throughout the game, Senua is haunted by auditory and visual hallucinations, presenting a deeply immersive and visceral experience for players. The game tackles the challenges of depicting mental illness with sensitivity and realism, offering insights into Senua's inner struggles and the impact of her condition on her perception of reality (Fordham & Ball, 2019).

Fordham and Ball argue that "rather than a game about psychosis, *Hellblade* is an attempt to create a game that allows the player to experience symptoms similar to psychosis." This approach is evident throughout the game, as Senua's reality is not questioned or undermined; players are meant to experience her reality as it is to her. The developers' intention is to provide players with a unique and immersive perspective into Senua's psychological journey.

This milestone in the representation of mental illness in video games has been made possible by Ninja Theory's willingness to collaborate with mental health professionals, researchers, and individuals suffering from mental health disorders, a level of collaboration rarely seen before in the gaming industry. The developers devoted themselves to creating a respectful depiction of psychosis, going so far as to develop the game independent of publisher support and funding.

Not only is the representation of mental illness in *Hellblade* sensitive and accurate, but it is also smartly crafted within the game mechanics. In addition to providing players with a compelling aesthetic experience that reflects Senua's hallucinations through visual and narrative tricks, the game's environmental puzzles play a crucial role in gameplay. These puzzles rely on visual cues (Figure 12) and notions of pareidolia—finding and forming seemingly insignificant patterns in the everyday—to challenge and engage players throughout the experience.

Figure 12: Visual cues representing the hallucinations needed to solve puzzles in Hellblade: Senua's Sacrifice

Note: From IGN

Sound plays a significant role in Hellblade's acclaim, particularly through the ongoing chorus of voices heard within Senua's head throughout the game. Using binaural 3D headphones, Ninja Theory

has created an exceptionally accurate and immersive experience that simulates what a person living with psychosis may endure in their everyday life.

The voices in the game serve not only as an auditory representation but also as a gameplay mechanic. They both assist and hinder Senua's progression on her journey to Helheim. As diegetic elements, these voices address not only Senua but also the player, subtly breaking the fourth wall and further immersing players into Senua's psychological struggles and the challenges she faces.

But not all opinions regarding Hellblade's representation are this optimistic. Dia Lacina wrote a critical piece for Polygon (Lacina, 2017) expressing strong opinions about Hellblade's representation of psychosis, particularly from her perspective as someone living with psychosis playing the game. Lacina strongly criticizes the bluff on the supposed permadeath caused by the rot on Senua's arm, arguing that the (false) consequences are explained via a non-diegetic splash that has agency not only on Senua but also on the player. Lacina views this as a manipulative tactic aimed at psychologically destabilizing players, which she considers an inconsiderate trespass.

Lacina also discusses her issues with the implementation of pareidolia in the game, feeling that it was not effectively communicated and that she was being explained her illness by an inexperienced outsider. This led to a sense of her experiences being appropriated to occupy a perspective that felt inauthentic.

Furthermore, Lacina criticizes other aspects of the game, including the portrayal of supposed benefits that mental illness may confer to the person living with it. She concludes by praising Ninja Theory's willingness to collaborate with people living with mental illness but emphasizes the need for games that handle mental illness as it is, without allegory, and especially games that are not merely illustrative but made with mentally ill individuals in mind.

Without undermining the perspectives of individuals living with mental illness, it's important to recognize that each experience of mental illness is unique, making it challenging to fully encompass everyone's experiences when designing a game. While it may be difficult to accommodate every perspective, it is crucial to acknowledge both the achievements of developers like Ninja Theory in including mental health professionals and patients in their creative process, as well as the criticisms and insights offered by individuals like Lacina.

By leveraging successes and learning from critiques, game developers can strive to improve and create even more impactful and respectful representations of mental illness in future games. Incorporating diverse viewpoints and experiences into the design process can lead to more nuanced and authentic portrayals that resonate with a broader range of players and reflect the complexities of mental health issues.

3.1.2. Case analysis

Given the questions and objectives posed in the current text, and the research structure that has been established as a result, it is crucial to examine additional cases through the lens of this project's framework and focus, which differs from the approaches taken by the authors above in their analyses.

To achieve this goal, a number of games have been analyzed by comparing their components to the specific aspects emphasized by the objectives of this project.

The analysis has been conducted either by playing the identified units of analysis or by utilizing sources of information such as game reviews or gameplay videos. Following that, the review card presented in **Table 7** has been completed to address a checklist of aspects derived from the literature research. The analysis in this section has then been organized using a topic-centered criterion rather than a game-centered one. The completed review cards can be found in Annex B.3 below.

Table 7: Game review card including checklist of analysis questions

Name				
Release date				
Developer				
Publisher				
Platform(s)				
Genre(s)				
Synopsis				
Mechanics and aesthetics				
Which mental illness or other sensitive issue is represented?				
Does the portrayed issue affect older adults?	Yes	No		
Is the portrayal of the issue dimensional?	1D	2D	3D	
Does the portrayal of the issue result in negative stereotypes?	Yes	No		
Are there minigames in the game?	Yes	No		
What is the significance of minigames compared to other gameplay elements?				
Are the minigames thematically connected to the main storyline or theme?	Yes	No		
Are the minigames connected to the portrayed issue?	Yes	No		
Are the mechanics of the overarching game connected to the main storyline or theme?	Yes	No		
Are the mechanics of the overarching game connected to the portrayed issue?	Yes	No		
Does emersion occur in the game?	Yes	No		
Does emersion occur intentionally?	Yes	No		
Does emersion positively	Yes	No		

impact the narrative?			

Note: Own work.

Target games

A total of five games have been selected as units of analysis. The criteria for selection included games featuring the representation of mental illness, the representation of older adults, or the presence of minigames. Since games comprising all three criteria are scarce, some of them may be underrepresented in certain aspects of the analysis.

Before I Forget (3-Fold Games, 2020) is a walking simulator developed and published by 3-Fold Games. It follows a woman named Sunita Appleby, who is struggling with early-onset Alzheimer's disease. Players navigate through her home, uncovering clues and memories that piece together her life story and the challenges she faces as her memory fades (Figure 13). The game offers a poignant and personal perspective on living with dementia.

Figure 13: A screenshot of Before I Forget

Note: From Steam

Ether One (White Paper Games, 2014) is a first-person puzzle adventure game developed and published by White Paper Games. Players assume the role of a "Restorer" in a unique simulation designed to help individuals with cognitive disorders. As the Restorer explores the patient's memories, they must solve puzzles (Figure 14) and navigate a shifting narrative to understand the patient's identity and the underlying causes of their mental fragility.

Figure 14: A screenshot of Ether One

Note: From Steam

Heal (Ratalaika Games, 2020) is a point-and-click puzzle adventure game developed and published by Ratalaika Games. Players embark on guiding an elderly man struggling with memory and loneliness through a dark and atmospheric setting (Figure 15) filled with puzzles that unveil key moments of his life upon completion.

Figure 15: A screenshot of Heal

Note: From Steam

Arise: A Simple Story (Piccolo Studio, 2019), henceforth referred to as *Arise*, is a puzzle platformer developed by Piccolo Studio and published by Untold Tales and Techland. Players take on a journey through the afterlife, following the life story of an elderly man. Players traverse stunning

landscapes (Figure 16) and solve environmental puzzles as they relive key moments from the protagonist's life, exploring themes of love, loss, and acceptance.

Figure 16: A screenshot of Arise: A Simple Story

Note: From Steam

Old Man's Journey (Broken Rules, 2017) is a puzzle-adventure game developed and published by Broken Rules. Players guide an elderly man on a reflective journey through picturesque landscapes (Figure 17). By manipulating the environment, players uncover the protagonist's life story, touching on themes of regret, family, and the beauty of life's fleeting moments.

Figure 17: A screenshot of Old Man's Journey

Note: From Steam

Mechanics and aesthetics

Since all five games belong to the subgenre of puzzle adventure games or walking simulators, their mechanics are actually quite simple and include a very limited set of actions for the player to interact with the game. Except for Arise, that puts a lot of importance into its platforming side, the games hold a really strong story-driven weight, and therefore are more narrative-driven than gameplay-driven, being the balance between the two aspects differently handled by each game.

In *Before I Forget*, gameplay mechanics are streamlined to three core actions: moving around, interacting with objects, and aligning templates with constellations in the sky. The narrative unfolds primarily through environmental interaction and aesthetics, immersing players in detailed scenes within the protagonist's house—a space brimming with mementos from a life she struggles to recall or comprehend.

In contrast, *Ether One* boasts a broader array of mechanics owing to its free-roam, puzzle adventure design. Beyond basic movement, players can jump, crouch, and teleport within the game world. Environmental interactions encompass object interactions, item collection, inventory management, photography, using a lamp to illuminate rooms, and manipulating the environment through the lamp's functions. Specific gameplay tasks involve repairing projectors for video clips, gathering ribbons to unlock core memories (Figure 18), and developing photographs in dark rooms. Visually, Ether One presents a detailed world from a first-person perspective, characterized by intricate scenes albeit with somewhat generic graphical elements.

Figure 18: One of the ribbons that can be collected in Ether One

Note: From Steam

The mechanics in *Heal* share similarities with *Before I Forget*, albeit with the distinction of *Heal*'s side-scrolling, 2D presentation compared to *Before I Forget*'s first-person perspective. *Heal* introduces puzzle-solving as an additional feature, with a focus on interacting with various objects to

progress. Aesthetically, Heal offers a distinctive and somber setting that effectively conveys feelings of loneliness and isolation.

Arise stands out with a strong emphasis on platforming mechanics, which sets it apart from other games in the genre. Its mechanics include jumping, utilizing bugs for flight, evading threats, collecting memories, and the pivotal ability to manipulate time—either advancing it or reversing it—to solve puzzles. Aesthetically, the game showcases a visually captivating world brimming with intricate details that evoke a sense of warmth and cheerfulness among players (Figure 19).

Figure 19: One of the memories unlocked in Arise: A Simple Story

Note: From Imgur

Old Man's Journey also features a very limited set of actions, including moving around, sitting on benches, and manipulating the environment to open new paths. Aesthetically, the game stands out with a unique hand-painted style that evokes an even more cheerful feeling than the beauty of *Arise*'s scenarios.

Analysis results

The data in Table 8 provides a quantitative summary of elements from game review cards. While a detailed analysis will follow, here is a concise overview.

The represented mental illnesses or issues include dementia, Alzheimer's syndrome, unspecified memory disorders, and aging. In 4 out of 5 (80%) games, older adults affected by these issues are featured. However, only 1 (25%) of these representations is dimensional; the rest (80%) are defining, with no decorative portrayals identified. Additionally, 4 (80%) of the games depict older adults in a manner that reinforces negative stereotypes.

Regarding minigames, 2 out of 5 (40%) games include them, but none are integrated with the storyline, theme, or portrayed issue.

In terms of mechanics, 3 out of 5 (60%) games incorporate mechanics linked to both the main storyline/theme and the portrayed issue.

In relation to emersion, only 2 out of 5 (40%) games produce some kind of emersion, and none are intentional or positively impact the narrative.

Table 8: Quantitative results from the case analysis

	Yes		No
Does the portrayed issue affect older adults?	4		1
	D1	D2	D3
Is the portrayal of the issue dimensional?	0	4	1
	Yes		No
Does the portrayal of the issue result in negative stereotypes?	4		1
	Yes		No
Are there minigames in the game?	2		3
	Yes		No
Are the minigames thematically connected to the main storyline or theme?	0		5
	Yes		No
Are the minigames connected to the portrayed issue?	0		5
	Yes		No
Are the mechanics of the overarching game connected to the main storyline or theme?	3		2
	Yes		No
Are the mechanics of the overarching game connected to the portrayed issue?	3		2
	Yes		No
Does emersion occur in the game?	2		3
	Yes		No
Does emersion occur intentionally?	0		5
	Yes		No
Does emersion positively impact the narrative?	0		5

Note: Own work.

Representation of mental illness and older adults

As previously mentioned, all five games meet at least one of the following criteria: representation of mental illness, depiction of older adults, or inclusion of minigames. *Before I Forget* and *Ether One* explicitly portray named mental illnesses like dementia and Alzheimer's disease, while *Heal* suggests a memory-related disorder associated with aging, possibly dementia. *Arise* and *Old Man's Journey* explore themes of aging and memory without specific mental illness representation. In terms of older adults, all games feature elderly protagonists except for *Before I Forget*, which depicts a rare form of early-onset Alzheimer's disease.

In terms of dimensionality (Dunlap & Kowert, 2022), only *Before I Forget* presents a three-dimensional portrayal of the issues it addresses. The other games offer two-dimensional representations that, while lacking depth and nuance, effectively integrate the thematic elements into both gameplay and narrative.

A significant concern arises from the fact that only *Old Man's Journey* avoids negative stereotypes that can harm the groups represented. In *Ether One*, *Heal*, and *Arise*, despite the intention to raise awareness, the portrayals perpetuate preconceived ideas about issues like loneliness and isolation associated with dementia and aging, without showcasing positive outcomes. *Before I Forget*, while offering a deep and nuanced representation, faces criticism for periodically awarding trophies/achievements for experiencing life with cognitive challenges, which is seen as inappropriate. Furthermore, the ambiguous ending (Figure 20) appears to romanticize suicide as a potential solution.

Figure 20: The problematic ending scene from Before I Forget
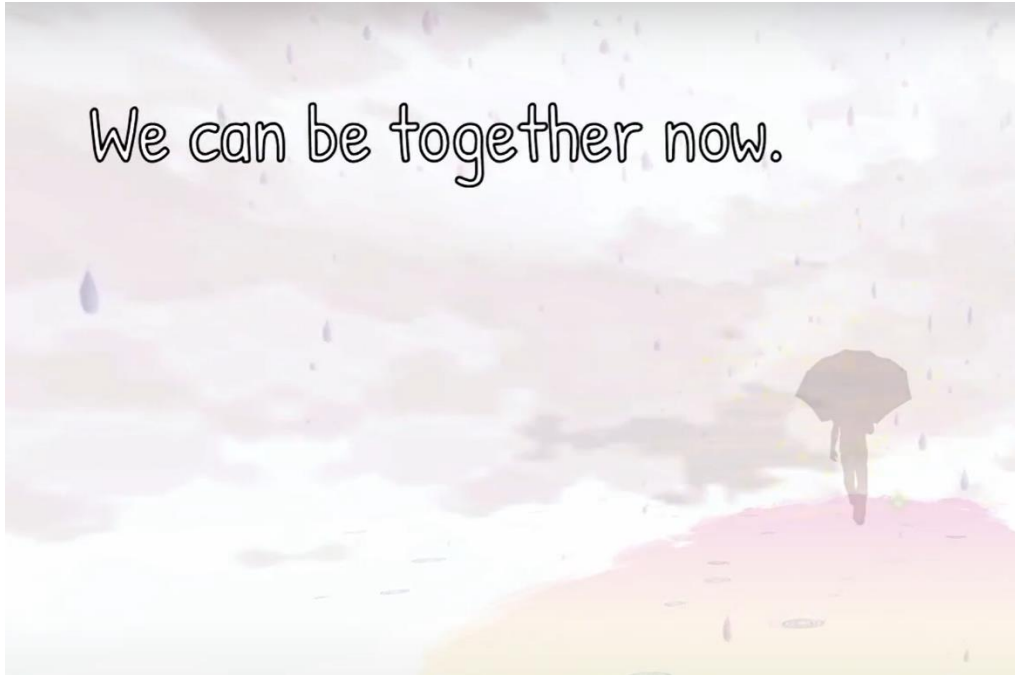
Note: From YouTube

Use of minigames

Within the realm of puzzle-oriented, story-driven games, *Ether One* and *Heal* are recognized for incorporating minigames. *Arise* and *Old Man's Journey* are excluded because their puzzles are primarily environmental in nature. The activity in *Before I Forget* involving aligning templates with constellations is more accurately classified as a core mechanic rather than a standalone minigame.

None of the minigames featured in *Ether One* or *Heal* are considered to be connected to the main storyline, theme, or the issues being addressed. In the case of *Ether One*, they may be part of the story, but the execution of the minigames is not related to those dimensions. The situation with *Heal* is even more problematic, as the minigames lack a logical explanation and do not feel integrated into the ludofictional world. If the developers intended them to explain the unnamed memory-related disorder suffered by the main character, the implementation is not effective and can disrupt the narrative flow for players.

Balance between mechanics and theme

When discussing the balance between mechanics and theme, only *Before I Forget*, *Ether One*, and *Heal* have mechanics that are connected to the main storyline, theme, or the represented issue, likely due to narrative exploration being a primary mechanic in all three games. *Arise* and *Old Man's Journey* create an imbalance by placing a significant emphasis on mechanics unrelated to the theme, such as time or environment manipulation (Figure 21). While all narrative goals have an associated ludological goal in the hierarchy (Cardona-Rivera et al., 2020), not all ludological goals are tied to a specific narrative goal, resulting in mechanics that exist for the sake of existence and do not contribute meaningfully to the narrative.

Figure 21: Environment manipulation in Old Man's Journey

Note: From Indie Hive

Finally, concerning disconnect or dissonance, only *Ether One* and *Heal* are prone to disrupting immersion due to their puzzle-oriented nature and the lack of correlation between the minigames and the story, theme, or the issues being addressed. In neither case is the inclusion of this dissonance intentional or positive, unless the developers aimed to use *Heal*'s puzzle dissonance as a hint related to the character's disorder.

Conclusions on case analysis

The quest to find units of analysis encompassing all the desired dimensions for analysis has been akin to a challenging video game. Among the five samples examined, only *Ether One* meets all three criteria, while the other games have been included because they meet at least one criterion and their themes closely align with the specific themes of the project—mental illness, dementia, and old age.

The results of the analysis have not been very positive, either. Regarding representation, only *Before I Forget* presents a character with genuine depth and nuance, but the representation is so

problematic that it does not support the argument. The other titles, while placing mental illness or aging at the center of the narrative, do not provide much depth or nuance to the characters they depict.

In terms of minigames, only *Ether One* and *Heal* somewhat include them, if the types of puzzles they feature can be classified as such. However, these minigames do not resonate with the story, theme, or the issues being addressed.

Finally, concerning the balance between mechanics and narrative, *Before I Forget*, *Arise*, and *Old Man's Journey* demonstrate a good balance that enhances the overall user experience. However, since the aim was to identify positive uses of intentional emersion, these games cannot be considered in the analysis. *Ether One* and Heal can disrupt immersion in players, but this disruption is neither intentional nor positive.

However, these results are far from a failure. The inability to find a title that meets all the criteria expected by the analysis indicates that if the existing literature is accurate about the needs and expectations of this project, there is a niche to be filled and ample room for testing and improvement.

3.2. Target audience

While story-driven games attract an increasingly larger audience year after year, the specific theme and mechanics of an adventure game about senile dementia featuring minigames may appeal to a more targeted audience. This includes **mental health professionals and educators**, such as psychologists, therapists, and social workers, who are interested in using interactive media as educational tools. Additionally, **patients experiencing mental illness and their caregivers** may find the game beneficial for understanding and empathizing with these conditions.

The game could also attract **general gamers who enjoy narrative-rich experiences** and are interested in exploring complex, emotionally driven stories with real-world themes. Furthermore, **mental health advocacy groups and non-profit organizations** dedicated to raising awareness about mental illness might find value in the game's authentic representation of dementia. **Educational institutions**, including schools, colleges, and universities, could incorporate the game into their curricula, particularly in psychology, gerontology, and game design programs.

Researchers and academics studying the intersection of mental health and digital media may also find the game useful for its innovative approach to interactive storytelling. Finally, **indie game developers and designers** interested in creating socially impactful games, as well as professionals in the gaming industry looking to explore new narrative techniques and game mechanics, could be drawn to the project.

3.3. SWOT Analysis

As represented in Figure 22, the strengths of this project include a **strong knowledge of Unity**, **extensive experience in programming**, and a **high level of creativity and imagination**. However, there are some weaknesses, such as **improvable art skills**, a **tendency to perform better under pressure**, and **personal time limitations**. On the other hand, the project presents several

opportunities, including **exploring an almost uncharted area of research** and the **freedom to design the game**. The primary threat to the project's success is the **time constraints** derived from the official submission calendar.

Figure 22: SWOT Analysis

Strenghts
- Knowledge of Unity
- Programming experience
- Creativity
- Imagination

Weaknesses
- Improvable art skills
- Performance under pressure
- Personal time limitations

Threats
- Uncharted research area
- Design freedom

Opportunities
- Time constraints from submission calendar

Note: Own work.

4. Proposal

As mentioned above, potential solutions to the issues at hand are to be implemented in a playable prototype that ensures an accurate yet realistic representation of dementia by integrating it into the core mechanics and story-driven minigames. As a first step towards designing the prototype and attracting potential stakeholders, two documents have been created: a Game Proposal, detailing the fundamental aspects that make the idea unique, and a Functional Requirements Document (FRD), gathering all the technological needs derived from the proposal.

4.1. Game Proposal

The Game Proposal is a three-page document designed to outline the core aspects of the idea and convince potential stakeholders of its uniqueness. It includes the synopsis and a superficial review of its game pillars, objectives, unique selling points, mechanics, and level structure. Although the sections are rendered here for reference, please see Annex B.4 below for a nicely formatted version (Figure 23).

Figure 23: Formatted version of the Game Proposal
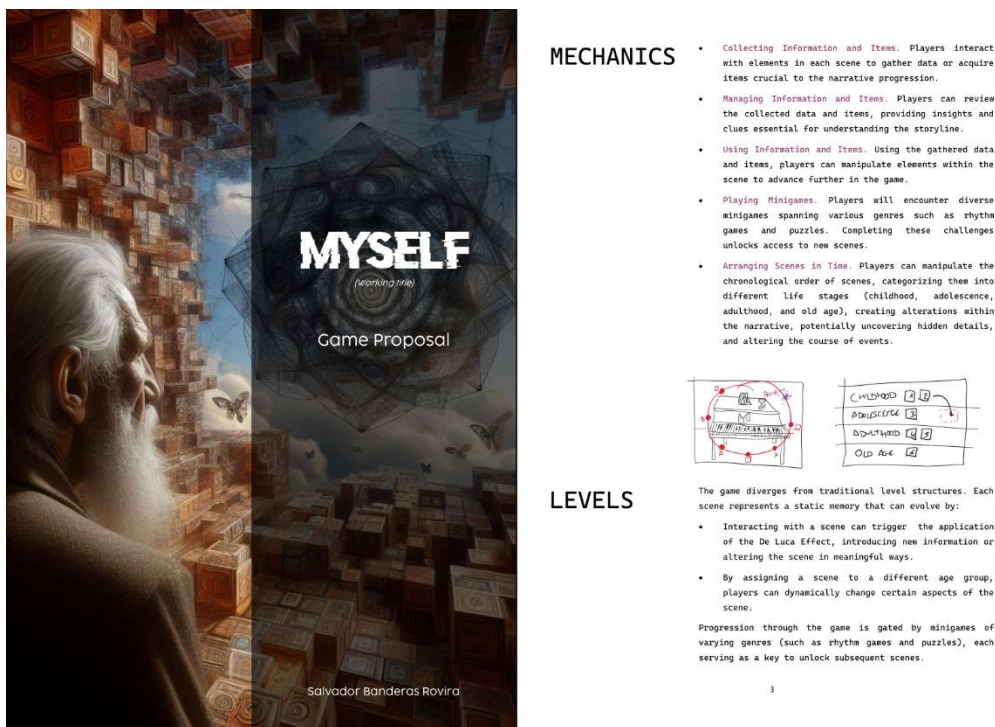
Note: Own work.

4.1.1. Synopsis

The synopsis of the game needed to feature three main aspects: the theme, the story, and the mechanics:

"Embark on a heartfelt journey through an elderly man's fragmented memories, distorted by the fog of time. Explore frozen scenes from his past—childhood innocence, adolescent turbulence, adult

triumphs, and twilight reflections— as you uncover hidden narratives within cherished mementos like faded photographs and haunting melodies. Rearrange these fragments to reveal deeper truths about the intricacies of memory and the inexorable passage of time. Can you piece together the puzzle of his fading recollections before the mysteries are lost to the shadows of time?"

4.1.2. Game pillars

Myself is an **adventure game** that blends **point-and-click mechanics** with short, casual **puzzles**, all while emphasizing **narrative depth** and the **representation of mental illness and older adults**. The game provides a **balanced experience**, catering to players seeking a challenge as well as those who prefer a seamless journey focused on the story.

4.1.3. Objective

The goal of the game is to unravel the mysteries surrounding the old man's memories, gain insight into his life story, and navigate the challenges presented by dementia. Through exploration and puzzle-solving, players will embark on a journey of understanding and empathy, delving deep into the protagonist's past and experiences.

4.1.4. Unique Selling Points (USP)

Myself unique selling points are:

- **Deep Narrative Exploration.** A thought-provoking story that explores the challenges of mental illness and aging.
- **Emotional Engagement.** Experience empathy and understanding through the portrayal of dementia using story-driven mechanics and interactive storytelling.
- **Realistic Representation.** Respectful and realistic depiction of mental illness and aging, informed by thorough research and expert consultation.
- **Accessible Gameplay.** A balanced experience tailored for both casual and dedicated gamers, allowing players to choose between challenging gameplay or a more narrative-focused journey.
- **Unique Art Style.** A visually captivating 2.5D world enriched with a varied color palette that conveys different emotions, enhanced by the innovative use of the De Luca Effect to evoke a distinct atmosphere and enhance storytelling.

4.1.5. De Luca Effect

The **De Luca Effect** (Figure 24), named after comic artist Gianni de Luca, describes a technique that merges multiple temporalities or moments in time within a single image. This approach enables the depiction of various events, actions, or scenes occurring simultaneously, resulting in a dynamic and layered visual narrative.

In the context of **Myself**, the De Luca Effect is utilized to portray the fragmented memories experienced by the protagonist. Following specific interactions, scenes within the game unveil new information about a memory by introducing events that closely relate to those previously depicted within the same scene.

Figure 24: The DeLucaEffect

Note: A comic strip featuring the use of the DeLuca Effect by representing multiple temporalities of the same characters in one scene. From X.

4.1.6. Mechanics

Myself mechanics include:

- **Collecting Information and Items.** Players interact with elements in each scene to gather data or acquire items crucial to the narrative progression.
- **Managing Information and Items.** Players can review the collected data and items, providing insights and clues essential for understanding the storyline.

Figure 25: Early mockup of game mechanics
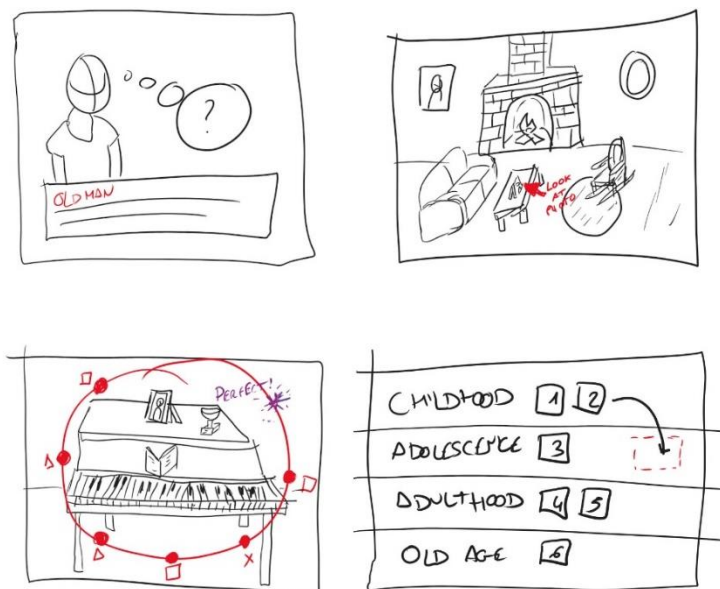
-
  - Note: Own work.

- **Using Information and Items.** Using the gathered data and items, players can manipulate elements within the scene to advance further in the game.
- **Playing Minigames.** Players will encounter diverse minigames spanning various genres such as rhythm games and puzzles. Completing these challenges unlocks access to new scenes.
- **Arranging Scenes in Time.** Players can manipulate the chronological order of scenes, categorizing them into different life stages (childhood, adolescence, adulthood, and old age), creating alterations within the narrative, potentially uncovering hidden details, and altering the course of events.

The early mockups in Figure 25 were included in the proposal as a representation of idea underlying the main game mechanics.

4.1.7. Level structure

The game diverges from traditional level structures. Each scene represents a static memory that can evolve by:

- Interacting with a scene can trigger the application of the De Luca Effect, introducing new information or altering the scene in meaningful ways.
- By assigning a scene to a different age group, players can dynamically change certain aspects of the scene.

Progression through the game is gated by minigames of varying genres (such as rhythm games and puzzles), each serving as a key to unlock subsequent scenes.

4.2. Functional Requirements Document (FRD)

The Functional Requirements Document (FRD) provides a technical blueprint for development, specifying the functional and non-functional requirements needed to realize the game proposal. Its purpose is to convince potential stakeholders of the feasibility of the development. The document deepens into the proposed components for the game and describes business rules, flows, and use cases. Due to its length, it has been included in Annex B.5 below. However, one of the components will be described here as an example of the detailed technical specifications and design considerations included in the document.

4.2.1. Example of Component from the FRD: Object Visibility Management

Each component is described in detail, including its features, user stories, business rules, user roles, process flows, business workflow details, and use cases. These descriptions provide a comprehensive overview of the component's purpose, functionality, and interactions within the game.

Description

The Object Visibility Management component controls the conditions under which objects in the game become visible or invisible, ensuring dynamic interactions based on age groups and global events.

Features

This section outlines the key functionalities that the component must provide to support the game's core mechanics and player interactions ().

Table 9: Object Visibility Management Features

ID	Description	MoSCoW
F13	Define visibility conditions for objects	Must have
F14	Update object visibility based on current age group and global events	Must have
F15	Implement visibility transitions (e.g., fade in, fade out)	Should have

Note: Own work.

User Stories

This section presents user stories that capture the needs, goals, and motivations of players interacting with the component.

Table 10: Object Visibility Management User Stories

ID	Description
US10	As a player, I want objects to appear and disappear smoothly based on the game state so that the game feels dynamic.
US11	As a developer, I want to define visibility conditions for objects to control their appearance based on the game state.
US12	As a player, I want the game to reflect changes in global events and age groups through object visibility.

Note: Own work.

Business Rules

This section outlines the guidelines and constraints that govern the behavior and interactions within the component.

Table 11: Object Visibility Management Business Rules

ID	Description
BR10	Objects must have clearly defined visibility conditions.
BR11	Visibility transitions should be smooth and not disrupt gameplay.
BR12	Visibility updates must be triggered by changes in age group or global events.

Note: Own work.

User Roles

This section defines the roles of different users interacting with the component and their responsibilities.

Table 12: Object Visibility Management User Roles

ID	Description
UR07	Player: Experiences changes in object visibility during gameplay.
UR08	Developer: Defines visibility conditions and implements visibility updates.

Note: Own work.

Process Flows

This section provides a visual representation of the step-by-step processes (Figure 26 and Figure 27) involved in the component, illustrating the sequence of activities that occur during the different phases of the interaction.

Figure 26: Define Visibility Conditions Process Flow
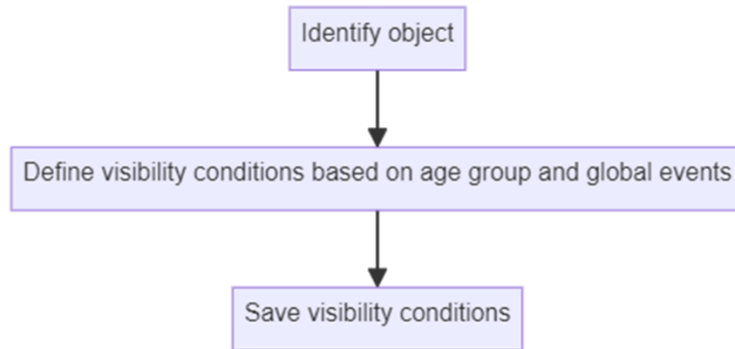
Note: Own work.

Figure 27: Update Object Visibility Process Flow
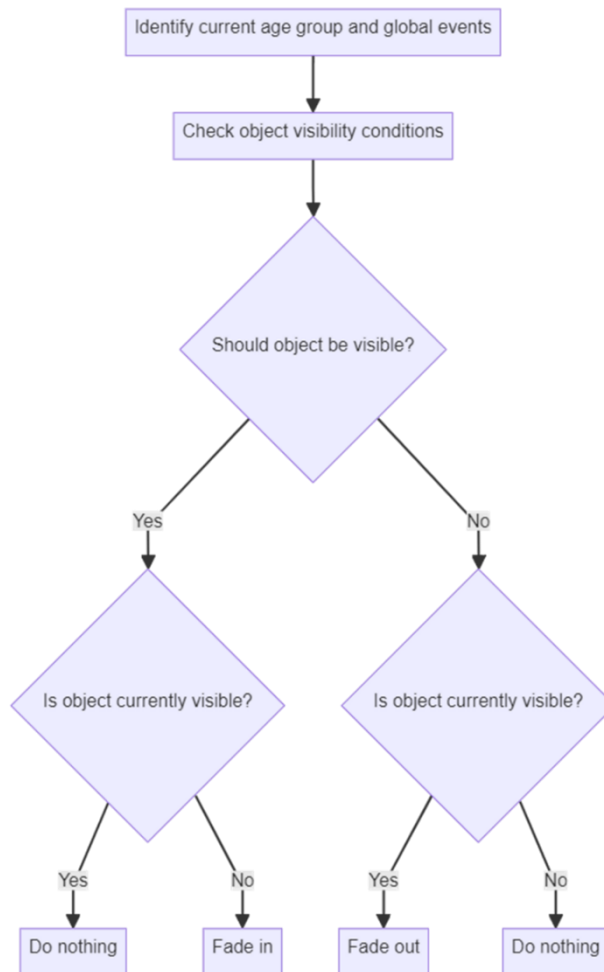
Note: Own work.

Business Workflow Details

This section provides a breakdown of the step-by-step processes involved in the component.

Table 13: Object Visibility Management Business Workflow Details

ID	Step Number	Step Detail
BW26	1	Identify object.
BW27	2	Define visibility conditions based on age group and global events.
BW28	3	Save visibility conditions.
BW29	4	Identify current age group and global events.
BW30	5	Check object visibility conditions.
BW31	6	Determine visibility state (visible or not).
BW32	7	Implement visibility transition if needed.

Note: Own work.

Use Cases

This section presents detailed descriptions of the specific use cases that the component must support to meet the needs of players and developers.

Table 14: Object Visibility Management Use Case: Define Visibility Conditions

Key	Value
Use Case ID	UC09
Description	Define visibility conditions for objects based on age group and global events.
Pre-conditions	Object must be identified.
Post-conditions	Visibility conditions are defined and saved.
Normal Flow	1. Identify object.
	2. Define visibility conditions based on age group and global events.
	3. Save visibility conditions.
Exceptions	If conditions are invalid, display an error message.
Notes	Ensure visibility conditions are comprehensive and cover all necessary scenarios.

Note: Own work.

Table 15: Object Visibility Management Use Case: Update Object Visibility

Key	Value
Use Case ID	UC10
Description	Update object visibility based on current age group and global events.
Pre-conditions	Current age group and global events must be identified.
Post-conditions	Object visibility is updated with smooth transitions.
Normal Flow	
Exceptions	If visibility conditions are not met, maintain current visibility state.
Notes	Ensure transitions are smooth and do not disrupt gameplay.

Note: Own work.

4.2.2. Other requirements

Beyond the functional requirements for each component, the FRD also encompasses a series of UX, Technical, and Non-Functional Requirements that ensure the overall quality and performance of the

game. UX requirements include guidelines for interface design, accessibility, and user feedback mechanisms to create an intuitive and enjoyable experience. Technical requirements detail the hardware and software specifications needed for development and optimal performance, covering the development environment, programming languages, and system requirements. Non-functional requirements address aspects such as security, scalability, maintainability, and performance, ensuring the game is robust, secure, and capable of handling various load conditions without compromising user satisfaction.

5. Design

The design phase of the prototype encompassed the elements that shaped the game into its current form. This chapter explores the critical components including the Level Design Document (LDD), Technical Architecture as guided by the FRD, and the programming languages and tools employed.

5.1. Game design

In the final design phase of the prototype, the Level Design Document (LDD) takes center stage, detailing the structured framework for each memory iteration within the game. This section introduces the reasons for choosing to start with a reduced version of the initial idea and outlines the specific elements described in the LDD for each level.

5.1.1. Myself: Prologue

"Myself: Prologue" serves as the introductory chapter to the game's narrative exploration of mental health and aging. Initially, the game's scope was too ambitious, but focusing on a prologue allows for a more focused experience. This decision ensures that core gameplay mechanics are introduced effectively and establishes the thematic foundation of dementia and memory exploration.

The difference between "Myself: Prologue" and the full game lies in the depth of narrative exploration and the complexity of mechanics. The prologue serves as a condensed version of the full game, offering a glimpse into the protagonist's life and the challenges he faces due to dementia. The intention for the full game was to feature eight different memories that could be explored across the four life stages, spanning a total of 32 iterations. However, since the initial age group for each memory evolves through interactions with the scene, and that some memories may also include mixed age groups, the total number of iterations was significantly higher. The prologue features only three memories spanning only the childhood, adolescence, and adulthood stages, and a final iteration with all four age groups mixed for one of the scenes. While still ambitious, this condensed version allows for a more focused and impactful experience.

5.1.2. Level Design Document (LDD) Overview

The Level Design Document (LDD) serves as the blueprint for each memory iteration in "Myself: Prologue." It outlines several key components:

- **Objects in Scene:** Identifies what players can see and interact with in each memory. It distinguishes between background elements that set the scene and objects that players can manipulate to progress.
- **Items:** Describes items that players can collect throughout the game. These items are crucial for solving puzzles or uncovering more about the story. They could be things, places, events, people, and feelings.

- **Events:** Specifies events triggered by player actions or as the story unfolds. These events can change the environment, reveal new information, or influence how the story progresses.
- **Sequences of Actions:** Details the sequences that can be triggered in each iteration of the memories.

The LDD ensures that each level in "Myself: Prologue" is carefully designed to provide a meaningful experience. Due to its length, it has been included in Annex B.6 below. However, one of the levels will be described here as an example of the detailed specifications and design considerations included in the document.

5.1.3. Example of Level from the LDD: Ice cream parlor, iteration 2 (Childhood)

Each level is described in detail, including the objects, global events, action sequences, and dialogue flows. These descriptions provide a comprehensive overview of the level's structure, interactions, and narrative elements.

Description

Second iteration of the Ice cream parlor level. The player can interact with a distressed grandma and a spilled ice cream cone.

Objects

This section lists the objects present in the level, including characters, items, and other interactable elements (Table 16).

Table 16: Ice cream parlor level, iteration 2 (Childhood) objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER:: BROTHER]	My big brother. I don't know what I'd have done without him.	[OBJECT_TYPE::OBSE RVABLE]	-	-
[CHARACTER:: DAD]	Dad. He always knew how to make me laugh.	[OBJECT_TYPE::OBSE RVABLE]	-	-
[CHARACTER:: DISTRESSEDG RANDMA]	There was something wrong with grandma.	[OBJECT_TYPE::INTER ACTABLE]	-	[ACTION::INTERACT] => [SEQUENCE::L3_CHILD_I2_INT _DISTRESSEDGRANDMA]
[CHARACTER:: GRANDMA]	Grandma. She was the heart of our family. And she really liked her [ice cream]!	[OBJECT_TYPE::OBSE RVABLE]	-	-
[CHARACTER:: MOM]	Mom. She was the kindest person I've ever known.	[OBJECT_TYPE::OBSE RVABLE]	-	[ACTION::INTERACT] => [ITEM::MOM]
[CHARACTER:: OLDMANCHILD]	My child self. He was always happy... but he feels sad.	[OBJECT_TYPE::OBSE RVABLE]	-	-

[CHARACTER:: VENDOR]	The ice cream vendor. She always had a smile on his face.	[OBJECT_TYPE::OBSE RVABLE]	-	-
[ITEM::MOM]	My mom.	[OBJECT_TYPE::PICKA BLE]	[ITEM_TYPE:: PEOPLE]	-
[ITEM::SCOOP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::PICKA BLE]	[ITEM_TYPE:: THING]	-
[OBJECT::CAS HREGISTER]	The parlor was always full of people. The register was probably full of money all the time.	[OBJECT_TYPE::OBSE RVABLE]	-	-
[OBJECT::FIGU RINE]	That's the figurine I have at home.	[OBJECT_TYPE::OBSE RVABLE]	-	-
[OBJECT::FLAV ORS]	They had the richest variety of flavors in town.	[OBJECT_TYPE::OBSE RVABLE]	-	-
[OBJECT::ICEC REAM]	A strawberry and vanilla ice cream cone. It was my grandma's favorite.	[OBJECT_TYPE::OBSE RVABLE]	-	-
[OBJECT::JUK EBOX]	They had the best music playing all the time. It had the best [discs].	[OBJECT_TYPE::OBSE RVABLE]	-	-
[OBJECT::MEN U]	On top of ice creams, they also served waffles, milkshakes, and sundaes.	[OBJECT_TYPE::OBSE RVABLE]	-	-
[OBJECT::SCO OP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::OBSE RVABLE]	-	[ACTION::INTERACT] => [ITEM::SCOOP]
[OBJECT::SPIL LEDICECREAM]	The ice cream cone was on the floor.	[OBJECT_TYPE::INTER ACTABLE]	-	[ACTION::INTERACT] => [SEQUENCE::L3_CHILD_I2_INT _SPILLEDICECREAM]

Note: Own work.

Global events

This section lists the global events that can be triggered in the level, detailing the conditions and interactions required to activate them (Table 17).

Table 17: Ice cream parlor level, iteration 2 (Childhood) global events

Event	Description
[EVENT::L3_CHILD_I2_INT_DISTRESSEDGRANDMA_COMPLETED]	The player has interacted with the distressed grandma.
[EVENT::L3_CHILD_I2_INT_SPILLEDICECREAM_COMPLETED]	The player has interacted with the spilled ice cream.

Note: Own work.

Action sequences

This section details the sequences of actions that players can trigger in the level, outlining the conditions and interactions required to activate them (Table 18).

Table 18: Ice cream parlor level, iteration 2 (Childhood) action sequences

Action sequence ID	Description
[SEQUENCE::L3_CHILD_I2_INT_DISTRESSEDGRANDMA]	Interacting with the distressed grandma.
[SEQUENCE::L3_CHILD_I2_INT_SPILLEDICECREAM]	Interacting with the spilled ice cream.

Note: Own work.

Level summary

This section provides a concise summary of the level, highlighting the key elements and interactions that players can expect (Table 19).

Table 19: Ice cream parlor level, iteration 2 (Childhood) summary

Concept	Value
Action sequence ID	[SEQUENCE::L3_CHILD_I2_INT_DISTRESSEDGRANDMA]
Events required	[EVENT::L3_CHILD_I1_INT_ICECREAM_GRANDMA_COMPLETED]
Interactions required	[ACTION::INTERACT] => [CHARACTER::DISTRESSEDGRANDMA]
Event triggered	[EVENT::L3_CHILD_I2_INT_DISTRESSEDGRANDMA_COMPLETED]
Item pickup	-

Note: Own work.

Dialogue flow

This section outlines the dialogue flow for the level, detailing the conversations and interactions that players can trigger (Figure 28).

Figure 28: Ice cream parlor level, iteration 2 (Childhood) dialogue flow
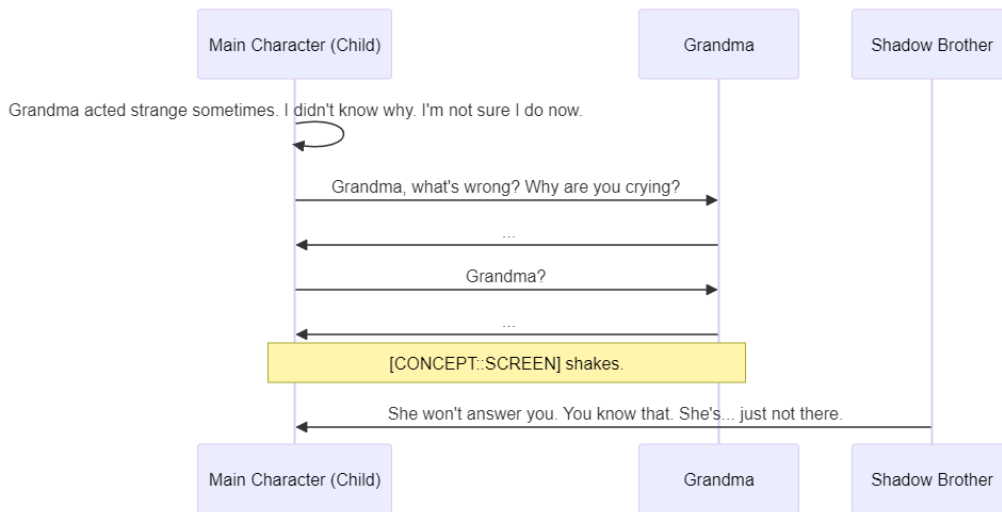
Note: Own work.

5.1.4. Strategies for Integrating Mental Illness Themes

While the detailed level designs are contained in the LDD, it is essential to describe the design strategies that integrate themes of mental illness into the mechanics of the prototype, since they're the answer to the questions that kickstarted the project. On a general note, these strategies include:

- **Dialogues:** Conversations with characters provide insights into the protagonist's thoughts and emotions, shedding light on the challenges of living with dementia.
- **Changing Ages:** Players can shift between different age groups (childhood, adolescence, adulthood, old age), altering the environment and interactions within each memory.
- **De Luca Effect:** This visual technique represents fragmented memories within the game, reflecting the protagonist's struggle with dementia and creating a dynamic narrative experience.
- **Minigames:** Various minigames of different genres (puzzles, rhythm games, etc.) are integrated to engage players and contribute to the storytelling, offering challenges that parallel the protagonist's cognitive challenges.

5.2. Technical design and architecture

The Technical Architecture for "Myself: Prologue" closely adhered to the guidelines outlined in the Functional Requirements Document (FRD). This adherence ensured a structured approach to system architecture, component integration, and overall technical implementation. The FRD provided clear directives on data management, user interface design, and game logic, contributing to a robust and scalable technical framework for the game. By following the FRD guidelines, the development process was efficient, and the project remained aligned with its objectives and stakeholder expectations. This section provides an overview of the key components and design considerations that shaped the technical implementation of the prologue.

5.2.1. General overview of the technical architecture

The architecture of "Myself: Prologue" was built around the Unity game engine, leveraging many of its core features and functionalities. However, the game's technical design extended beyond Unity's core components to include custom scripts, data structures, and interfaces tailored to the specific requirements of the game (Figure 29). The technical architecture was designed to support the following key aspects:

- **Managers:** Responsible for coordinating game systems, handling data, and managing interactions between different components.
- **Controllers:** Managing user input and interactions with the user interface.
- **Entities:** Representing characters, objects, and items within the game world, each with unique properties and behaviors. This also includes non-visible entities like events and sequences.
- **Components:** Encapsulating specific functionalities and behaviors that can be attached to entities to define their behavior and interactions.

To ensure the scalability and maintainability of the game, the technical architecture was designed with modularity and extensibility in mind. This approach allows for the easy addition of new features, mechanics, and content, as well as the modification of existing systems without compromising the overall stability and performance of the game. Several scriptable objects were used to define data

structures, configurations, and settings, providing a flexible and efficient way to manage game data and content. Additionally, the scriptable objects were serialized and stored in asset files, allowing for easy editing and version control within the Unity editor.

Figure 29: Project structure in Unity.
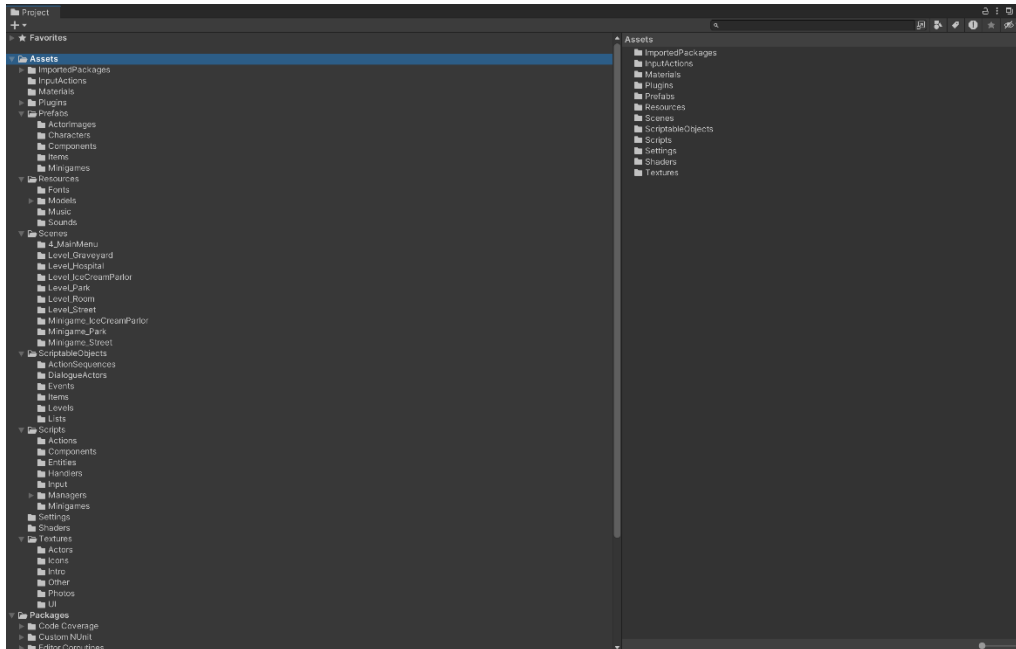
Note: Own work.

Given the significant number of scripts interacting with each other, a clear separation of concerns was maintained throughout the development process. This separation ensured that each script was responsible for a specific aspect of the game, reducing dependencies and improving code readability and maintainability. However, since not all dependencies could be eliminated, especially when subscribing to events declared by some of the managers during scene loading and unloading, the use of Unity's built-in "Script Execution Order" setting was necessary. This ensured that scripts were executed in the correct order, preventing potential issues related to script dependencies and execution order. The order of execution was as follows:

- **CustomSceneManager.cs:** Responsible for loading and unloading scenes and managing scene transitions. Publishes events when a scene is loaded or unloaded, which are subscribed to by most of the other scripts.

- **GameManager.cs:** Responsible for managing the game state, player progress, and overall game flow. Publishes events when the game state is ready or changes.

- **EventManager.cs:** Manages custom global events and triggers. Depends on the previous managers to function properly and publishes Unity events when a custom global event is triggered.

- **ItemManager.cs:** Manages items, inventory, and item interactions. Depends on the previous managers to function properly and publishes events when an item is picked up or used.

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- **LevelManager.cs:** Manages level information, such as the current age group or the visible objects in the scene. Depends on the previous managers to function properly and publishes events when something within the level changes, which are subscribed to by other scripts.
- **PauseManager.cs:** Manages the game's pause state and user interface. Depends on the other managers to display the correct information.
- **SceneAlbumManager.cs:** Manages the album scene. Depends on many of the other managers to display the correct information.
- **ObjectInteractable.cs, ObjectShowable.cs, and AlbumRegion.cs:** Entity components that manage interactions with objects in the scene. Depend on the previous managers to function properly.

The rest of the scripts are free of any dependencies and are executed in the order they are loaded by Unity.

5.2.2. Scene and level management

Due to the complexity of the game's structure and the need to manage multiple variables for each scene and level, a custom scene management system was implemented to handle scene loading, unloading, and transitions. This system was designed to ensure seamless transitions between scenes, maintain data consistency, and manage the game state effectively. The scene management system included the following key features:

- **Scene loading and unloading:** The system was designed to load and unload scenes dynamically, allowing for the creation of a seamless game world with minimal loading times. Scenes were loaded asynchronously to prevent performance issues and ensure smooth transitions between different areas of the game.
- **Event-driven scene transitions:** The system utilized custom events to trigger scene transitions, allowing for the execution of specific actions before and after loading a scene. This event-driven approach enabled the game to maintain data integrity and handle scene transitions efficiently.

The scene management system was integrated with other game systems, such as the data management system and the event system, to ensure that player progress was saved correctly and that events were triggered at the appropriate times.

Besides the scenes, the levels were managed by a custom level management system that handled the progression of the game, the age groups, and the visibility of objects within each level. This system was designed to ensure that players could progress through the game smoothly, interact with objects effectively, and explore the narrative at their own pace. The level management system included the following key features:

- **Age group management:** The system tracked the current age group of the player and managed the visibility of objects based on the selected age group. This feature allowed

players to explore different aspects of the game world and uncover hidden details by changing the age group dynamically.

- **Object visibility management:** The system controlled the visibility of objects within each level, ensuring that objects were displayed or hidden based on specific conditions and events. This feature enabled the game to present a dynamic and interactive environment that responded to player actions and choices.

The level management system was also designed towards simplifying the creation and management of levels, allowing for easy integration of new content and mechanics as the game evolved. Particularly, the system was built using Unity's Scriptable Objects to define the configuration and settings for each level, providing a flexible and efficient way to manage level data and content. On the one hand, the `Level` Scriptable Object (Figure 30) contained the level's metadata and the information needed to load the level, such as the scene name, the age groups available, and the objects present in the level:

- **Scene name:** The name of the scene associated with the level, allowing the system to load the correct scene when the level is selected.
- **Scene asset:** The scene asset associated with the level, providing a reference to the scene file for editor-only purposes.
- **Initial age group:** The default age group for the level, determining the initial state of the level when loaded for the first time.
- **Enable pause:** Indicates whether the pause menu should be enabled in the level, allowing players to pause the game and access additional options.
- **Has album photo:** Indicates whether the level is part of the levels that can be accessed through the photo album scene.
- **Album photo image:** The image representing the level in the photo album scene, providing a visual reference for players.
- **Album photo required events:** The global custom events required to unlock the level in the photo album scene, ensuring that players complete specific actions before accessing the level. Events are described in Section 5.2.5 below.
- **Show photo album indicator:** Indicates whether the photo album indicator in the scene, allowing players to access the photo album scene from the level.
- **Photo album indicator required events:** The global custom events required to display the photo album indicator in the scene, ensuring that players complete specific actions before being able to go back to the photo album scene. Again, events are described in Section 5.2.5 below.
- **Level sequence events:** The sequences of action that can be triggered in the level, providing a structured way to manage interactions and events within the level. Sequences are described in Section 5.2.4 below.
- **Background music:** The background music associated with the level.

Figure 30: Editing a Level Scriptable Object in Unity.
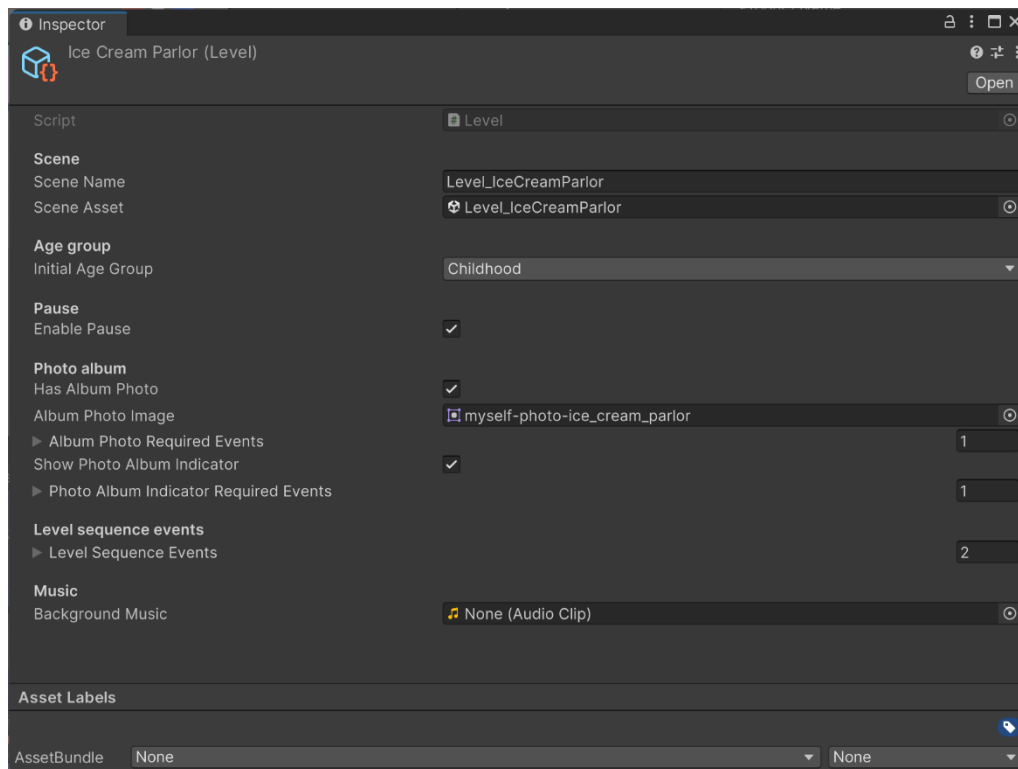
Note: Own work.

On the other hand, the `LevelList` Scriptable Object contained a list of all the levels in the game, providing a centralized repository for level data and configurations that can be easily accessed and modified.

One of the main mechanics of the game was the ability to change the age group of the scene, which would alter the environment and interactions within the memory. This mechanic was implemented using a scene emulating a photo album, where players could drag the levels to different age groups to explore the memory from various perspectives. The scene heavily relied on the level management system to handle the transitions between age groups and manage the visibility of objects based on the selected age group.

Regarding the visibility of objects, all models in scene including a Collider could be attached the `ObjectShowable` component (Figure 31), which would manage the visibility of the object based on the current age group and global events. This component was responsible for handling the object's visibility transitions, such as fading in or out, and ensuring that objects were displayed or hidden correctly based on specific conditions. The level management system would update the visibility of objects in the scene based on the selected age group and global events, providing a dynamic and interactive environment that responded to player actions and choices.

Figure 31: A Unity GameObject using the ObjectShowable component.
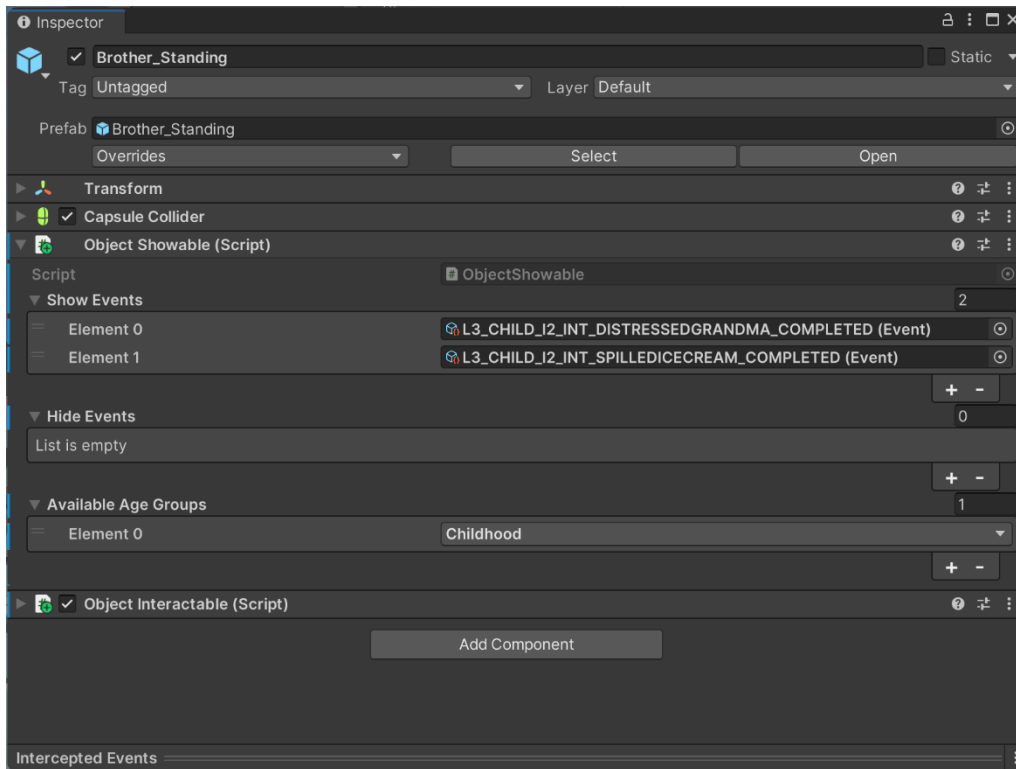
Note: Own work.

5.2.3. Interactions and items

The core mechanics of the game revolved around interactions with objects and items within the scene, allowing players to gather information, solve puzzles, and progress through the narrative. The interactions and items system was designed to provide a seamless and intuitive gameplay experience, enabling players to explore the game world and uncover hidden details about the protagonist's memories. The system included two key components: object interactions and item management.

Regarding object interactions, all models in scene including a Collider could be attached the `ObjectInteractable` component (Figure 32), which would manage the interactions with the object based on its metadata and properties. The component allowed two kinds of interactions:

- **Primary interaction or "observing":** By left-clicking on the object, players could observe the object, triggering a message or a sequence related to the object.
- **Secondary interaction or "interacting":** By right-clicking on the object and holding the button, a radial menu would appear, allowing players to use any collected items on the object to trigger a sequence.

Both interactions could also result in an item being picked up and added to the player's inventory, providing clues and insights into the story. Although there are no inventory management mechanics in the prologue, the items can be visited in the radial menu. Items were also added using Unity's Scriptable Objects, allowing for easy configuration and management within the Unity editor. The

`Item` Scriptable Object contained the item's metadata and information needed to interact with the item, such as the item name, description, and icon:

- **Icon:** The icon representing the item in the inventory, providing a visual reference for players.
- **Name:** The name of the item, allowing players to identify the item in the inventory.
- **Description:** A brief description of the item, providing additional information or context about the item.
- **Type:** The type of the item, categorizing the item based on its nature.

Figure 32: A Unity GameObject using the ObjectInteractable component.
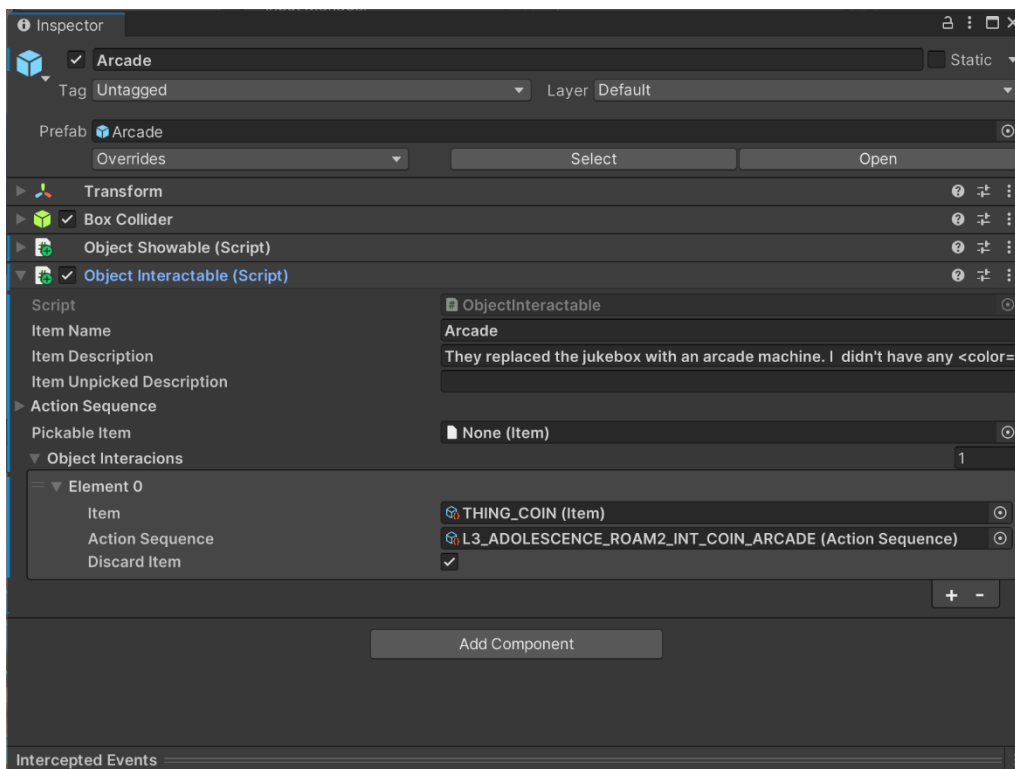
Note: Own work.

5.2.4. Sequences and dialogue system

The action management system was responsible for managing the flow of interactions within the game, providing a structured way to present information, trigger actions, and engage players with the narrative. The system relied on two main components: the actions, which were specific kinds of feedbacks given to the player, and the sequences (), which were predefined sequences of actions that could be triggered in response to specific events or conditions. Both entities were created using Unity's Scriptable Objects, allowing for easy configuration and management within the Unity editor. The possible actions were:

- **Show Message:** Display a message to the player, providing information or feedback about the game world.

- **Show Dialogue:** Display a dialogue to the player, allowing characters to communicate and interact with each other.

- **Hide Dialogue:** Hide the dialogue from the screen, ending the conversation.

- **Trigger Event:** Trigger a custom global event, allowing for the execution of specific actions or behaviors within the game.

- **Item Pickup:** Pick up an item in the scene, adding it to the player's inventory.

- **Item Discard:** Discard an item from the player's inventory, removing it from the game.

- **Change Age Group:** Change the age group of the level, altering the environment and interactions within the memory.

- **Load Level:** Load a new level in the game, transitioning to a different memory or scene.

- **Screen Shake:** Shake the screen to create a visual effect or emphasize a specific event.

Figure 33: Editing an ActionSequence Scriptable Object in Unity.
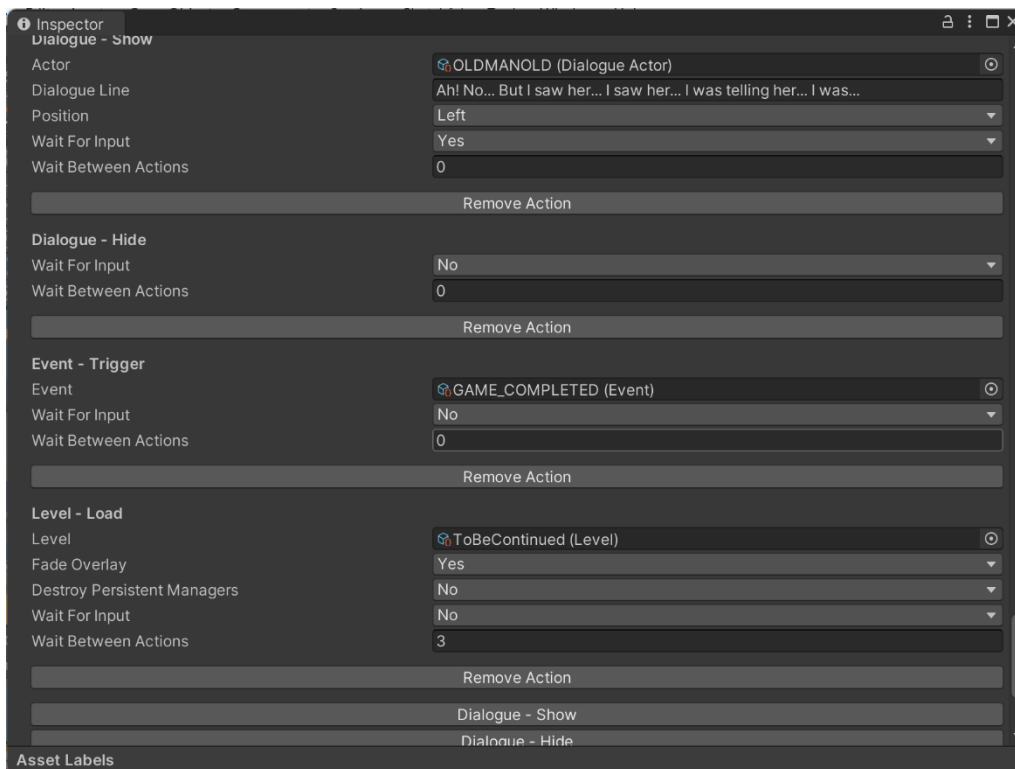
Note: Own work.

While the dialogues between characters relied on the sequence system, they were also a subsystem of their own. The dialogue system was responsible for managing conversations between characters, providing context, and advancing the narrative. The subsystem required the use of a Scriptable Object, a Prefab and a Sprite, and was designed to be flexible and extensible, allowing for the easy addition of new dialogues and interactions as the game evolved.

5.2.5. Custom global events

In order to ensure the cohesion between all the game systems, a custom global event system was implemented to manage the triggering of events and the communication between different components. The system was designed to provide a centralized way to handle events, allowing for the execution of specific actions or behaviors based on predefined conditions or triggers. As other systems, the global event system relied on Unity's Scriptable Objects to define the events, providing a flexible and efficient way to manage event data and configurations. Events are used by the rest of the managers either to trigger actions or to subscribe to them.

5.2.6. Data management and persistence

The technical architecture included a robust data management system to handle player progress, save states, and game state persistence. This system was designed to ensure seamless player experiences across different sessions and platforms, allowing players to pick up where they left off and maintain progress throughout the game. It was responsible for managing the following key aspects:

- **Save and load game state:** The system allowed players to save their progress and load it at a later time, ensuring that player data was stored securely and could be accessed across different sessions.

- **Player progress tracking:** The system tracked player progress, including completed levels, collected items, and unlocked content, providing players with a sense of accomplishment and progression.

The data management system obtained the necessary information from the level management system, the item management system, and the event system, using delegate classes that serialize the Scriptable Objects. Then, the system used Unity's PlayerPrefs and serialization features to store and retrieve player data from a JSON file, providing an efficient way to manage player progress and save states. The JSON was intentionally not encrypted to allow for easy debugging and testing during development, but this could be changed in the future to ensure data security and integrity.

5.2.7. User interface

While independent from the rest of the systems, the user interface manager was responsible for managing the game's user interface, providing players with essential information, feedback, and interactions. All the other managers would communicate with the user interface manager to display the correct information to the player, ensuring that the game's interface was responsive, intuitive, and engaging. The user interface manager was designed using Unity's UI system, leveraging features such as canvases, panels, and buttons to create a visually appealing and interactive interface. The user interface manager included the following key components:

- **Main menu:** The main menu provided players with options to start a new game, load a saved game, access settings, and exit the game.

- **Pause menu:** The pause menu allowed players to pause the game, access the inventory, save their progress, and return to the main menu.
- **Radial menu:** The radial menu provided players with options to interact with objects, use items, and trigger actions within the game world.
- **Dialogue box:** The dialogue box displayed conversations between characters, providing context and advancing the narrative.
- **Message box:** The message box displayed messages to the player, providing information or feedback about the game world.
- **Album indicator:** The album indicator displayed an icon in the scene, allowing players to access the photo album scene and explore different memories.
- **Save indicator:** The save indicator displayed an icon in the scene when the auto-save feature was triggered, indicating that the player's progress was saved.

Figure 34: Prototype UI elements.
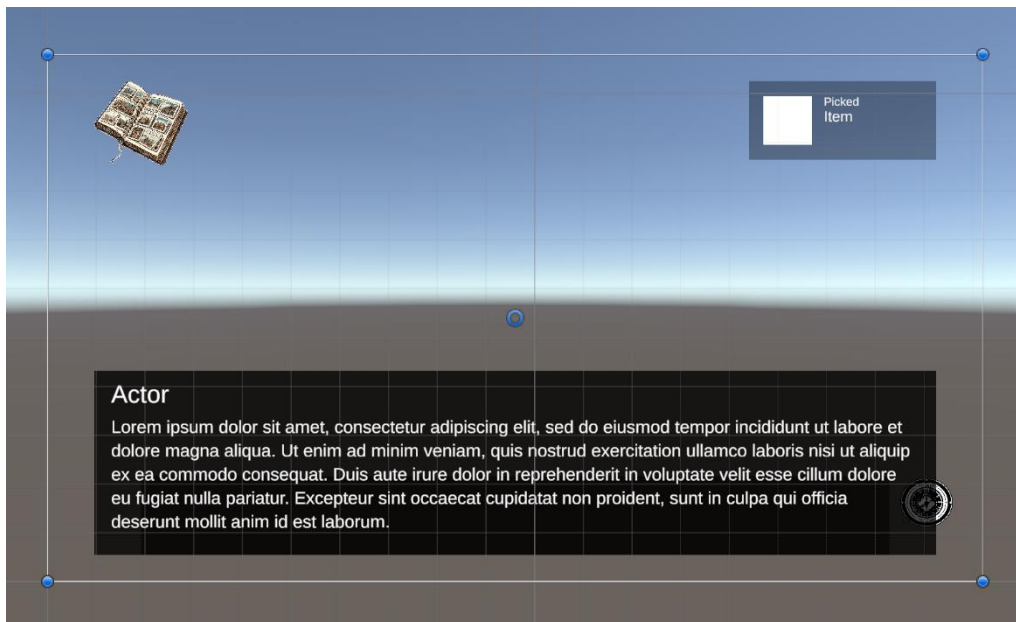
Note: Own work.

5.2.8. Minigames

Based on the conclusions of the theoretical framework, minigames were designed using a mise-en-abyme approach, where the gameplay mechanics mirrored the cognitive challenges faced by the protagonist. The minigames were integrated into the narrative and used to reinforce the game's themes and provide players with a deeper understanding of the protagonist's struggles with dementia. However, per definition, minigames are games within a game, and as such, they have their own set of rules and mechanics that are independent of the main game. Although their simplicity, their components and flows won't be described here. Instead, a brief description of the three included in the prologue will be provided:

- The **ice cream serving** minigame was designed to test players' attention to detail, requiring them to serve the correct ice cream flavor based on a particular orden in a limited time.
- The **graffiti painting** minigame was designed to test players' reactiveness, requiring them to paint a wall when a police officer wasn't looking.
- The **kite flying** minigame was designed to test players' coordination, requiring them to avoid obstacles while moving the kite up and down.

All three minigames relied on a single design directive: **players can't lose**. Instead, the typical reactions associated with success and failure were linked to the narrative tension, providing comforting or distressing feedback to the player. The conclusion of each minigame would be the same, regardless of the player's performance, to ensure that the narrative progression was consistent and that players could continue exploring the story without being blocked by the minigames.

5.3. Graphic Design and Interfaces

Graphic design and interface development were crucial in creating an immersive and intuitive player experience. This section details the visual and interface design elements, including the logo, mockups, and overall aesthetic. Since there are no low-fidelity prototypes, most of the design process was trial and error, leading to iterative improvements based on testing and feedback.

5.3.1. Game logo

A distinctive logo (Figure 35) was designed to capture the essence of "Myself: Prologue." This logo is used consistently across all branding materials, including the website, executable icon, and background images, ensuring a cohesive and recognizable identity for the game.

Figure 35: Game logo
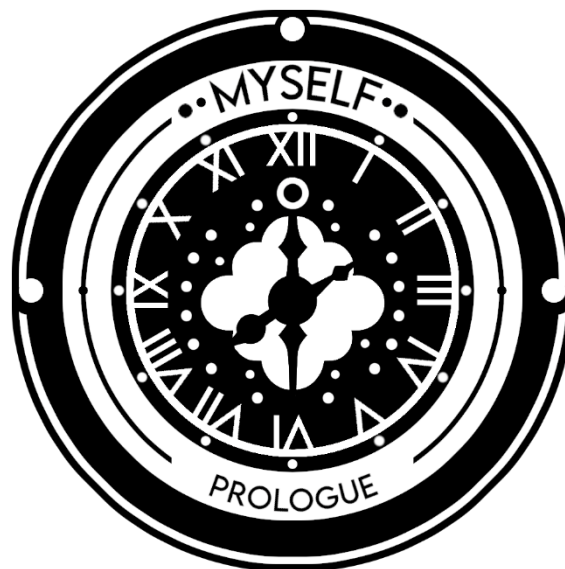
Note: Own work.

5.3.2. Game Website

A website (Figure 36) was created for "Myself: Prologue" to host the WebGL version of the game and provide updates, including links to the latest version and additional resources for players and stakeholders. It was developed directly using Bootstrap, a popular framework for building responsive and mobile-first websites.

Figure 36: Game Website
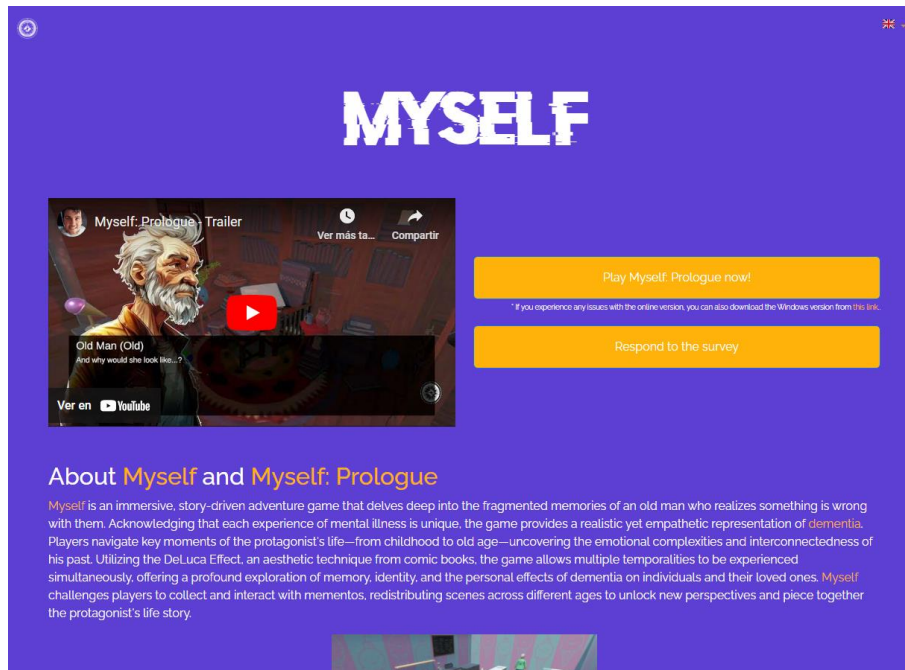
Note: Own work.

5.3.3. Color palette

The color palette (Figure 37) was carefully chosen by the author to align with the game's themes and aesthetics, creating a visually appealing and user-friendly interface. The website serves as a central hub for accessing the game, providing updates, and offering additional resources for players and stakeholders.

Figure 37: Color palette
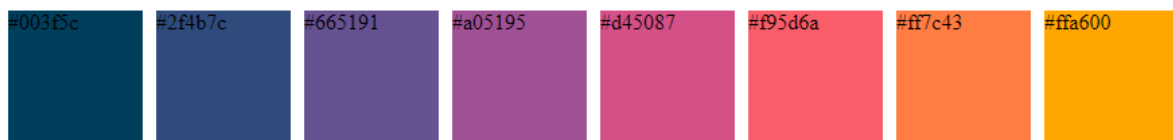
Note: Own work.

5.4. Programming Languages and tools

The development of "Myself: Prologue" utilized a range of programming languages and tools to build the game efficiently and effectively.

5.4.1. Programming Languages

Key programming languages used in the development include:

- **C#:** Employed within the Unity game engine to script gameplay mechanics, interactions, and game logic.
- **HTML/CSS/JavaScript:** Used for the development of the game's website, ensuring a seamless online experience for players.

5.4.2. Tools

Several tools were instrumental in the development process:

- **Unity:** The primary game engine used for developing "Myself: Prologue," providing a robust platform for building and testing the game.
- **JetBrains Rider.** Used for developing the core gameplay mechanics and scripting within the Unity game engine.
- **Visual Studio Code:** Utilized for web development tasks, including creating and maintaining the game's website
- **Git:** Version control system to manage and track changes in the game's development.
- **GIMP:** Utilized for graphic design, creating assets, and mockups.

6. Implementation

The latest build of "Myself: Prologue" is designed to be user-friendly and requires no installation, allowing players to engage with the game immediately.

6.1. Accessing the Game

The game is available in two versions: an online version, which requires a constant internet connection but prevents users from downloading any files, and an offline version for Windows. As mentioned in the previous section, the website created for the prototype will always include links to the latest available version.

6.1.1. WebGL Version

The WebGL version of the game is hosted on itch.io, providing easy access for players with just a web browser. To play the game:

- Open a web browser.
- Navigate to the game's page using the provided link.
- Click the "Run Game" button to start playing directly in the browser.

6.1.2. Windows Version

The Windows version of the game is distributed as a standalone executable file, eliminating the need for an installer. To play the game:

- Download the game file from the link that was provided.
- Extract the contents of the ZIP file.
- Double-click the executable file to launch the game.

7. Demo

As the development of "Myself: Prologue" advanced, it passed distinct phases, each crucial to shaping its gameplay and narrative experience. This section provides some insight into these developmental stages: from the early prototypes that laid the foundation of its mechanics and storytelling, to the pivotal feedback sessions that refined its design, culminating in a polished demo.

7.1. Prototype phases

The project underwent three distinct prototype versions. The first prototype (Figure 38) was a non-interactive demonstration narrated by a character, designed to showcase the core aspects of the game and establish the narrative tone. The second prototype focused on proving the core mechanics with minimal narrative elements, serving as a proof of concept for gameplay interactions. The final prototype, the complete Prologue Demo, integrated the full narrative, character interactions, puzzles, and minigames, offering a comprehensive preview of the game's potential.

Figure 38: A screenshot of the first version of the prototype
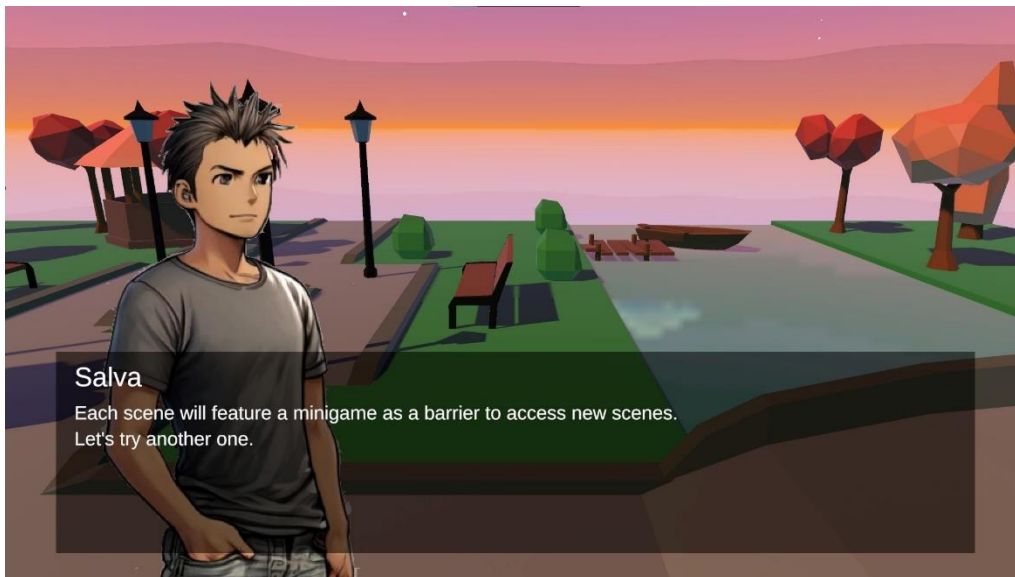
Note: Own work.

7.2. Testing and user feedback

The testing and user feedback process was conducted in two phases: first, a focus group with a small number of testers, and second, a survey directed to a broader audience.

7.2.1. Focus group

The second prototype was evaluated through focus group testing, which provided valuable insights and helped refine the gameplay mechanics. The focus group comprised five different participants:

- **Participant 1:** Male, 26 years old, with extensive experience in video games but no background in game development or mental health.
- **Participant 2:** Female, 33 years old, limited experience in video games and no background in game development or mental health.
- **Participant 3:** Male, 30 years old, seasoned gamer with no background in game development.
- **Participant 4:** Male, 36 years old, experienced in video games and possesses basic knowledge of game development.
- **Participant 5:** Female, 37 years old, no experience in video games and no background in game development.

Each participant tested the second prototype for approximately 10 minutes and provided feedback based on four key questions:

- **Overall Impression:** Participants were asked for their overall thoughts on the game.
- **Clarity of Instructions:** Feedback focused on whether the game instructions were clear and understandable.
- **Accuracy and Empathy of Representation:** Participants were prompted to assess the accuracy and empathic portrayal of mental health within the game.
- **Mechanics and Representation:** Participants evaluated how well the gameplay mechanics supported the representation of mental health issues.

Participants found the game's concept to be original and praised its engaging visual style. The minigames were particularly noted for being enjoyable and adding to the overall experience. However, the demo was critiqued for its brevity, which limited the depth of the narrative and representation of mental health issues. Some participants felt that while the plot seemed interesting initially, it did not fully develop within the short duration of the demo. There were mixed views regarding the accuracy and empathy of the mental health representation. Some participants felt it was underrepresented in the demo, while others appreciated the initial efforts but suggested further development.

7.2.2. Survey

Additionally, a survey (Table 20) was distributed to gather feedback on the final prototype. The questions of the survey were designed to evaluate four different aspects:

- Overall player experience.
- Clarity and usability of the game instructions.
- Perceptions of the accuracy and empathy in the portrayal of mental health.
- Effectiveness of the game mechanics in conveying the intended themes.

Table 20: Questions of the survey

What is your age?	Under 18	18-24	25-34	35-44	45-54	55-64	65 or older	Prefer not to say
What gender do you identify with?	Male		Female		Prefer not to say		Other	

What definition suits you best?	I work or study in the field of video games development or design		I work in the field of mental health, caregiving and/or geriatrics		Other	
How would you describe your gaming experience level?	Beginner		Intermediate	Advanced		Expert
How engaging did you find the storyline?	1	2		3	4	5
How relatable did you find the main character (the old man)?	1	2		3	4	5
The main theme of the game is the representation of mental illness, particularly dementia, through gameplay and narrative. How effectively did the game convey this theme?	1	2		3	4	5
How would you rate the emotional impact of the game?	1	2		3	4	5
Were there any particular scenes or moments that stood out to you? If so, which ones and why?						
The game features the DeLuca Effect (representing multiple temporalities in the same scene) as a narrative tool. Did you find it contributes effectively to the storytelling?	1	2		3	4	5
Did you find the pacing of the narrative appropriate?	1	2		3	4	5
How intuitive were the game controls and mechanics?	1	2		3	4	5
Were the instructions and tutorials clear and helpful?	1	2		3	4	5
How enjoyable were the minigames (e.g., ice cream-serving, kite-flying)?	1	2		3	4	5
How well did the minigames integrate with the overall narrative?	1	2		3	4	5
Did you notice any dissonance between the game mechanics and the story? If so, did it reinforce or weaken the narrative?	I noticed dissonance, and it reinforced the narrative		I noticed dissonance, and it weakened the narrative		I did not notice any dissonance	
Overall, how satisfied were you with "Myself: Prologue"?	1	2		3	4	5
What did you like most about "Myself: Prologue"?						
What did you like least about "Myself: Prologue"?						
Any additional comments or feedback?						
Would you be interested in playing the full game based on this prologue?	1	2		3	4	5

Note: Own work.

The survey was sent out through both specialized channels, such as Discord channels, Telegram groups, and general channels like LinkedIn and X. Furthermore, seven different institutions focused on Alzheimer's were contacted (space for list), but only three responded and have not continued the conversation after receiving the information. However, the response rate was lower than expected due to two main reasons: the survey was sent out only a few days before the submission date, and the demo's length discouraged many users from completing it.

Figure 39: Pie chart of the "How engaging did you find the storyline?" question
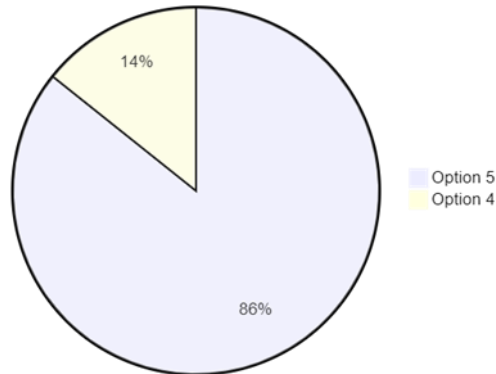
Note: Own work.

Figure 40: Pie chart of the "How relatable did you find the main character (the old man)?" question
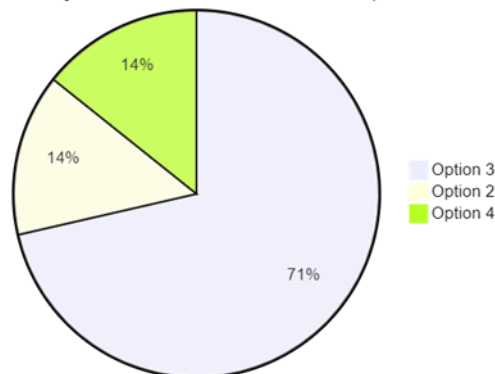
Note: Own work.

Despite these challenges, valuable insights were obtained from the responses. Regarding engagement and relatability, the survey revealed that the storyline was highly engaging, with an average score of 4.86 (Figure 39). Most respondents found the main character, an elderly man, to be moderately relatable, scoring an average of 3 (Figure 40).

Figure 41: Pie chart of the "How effectively did the game convey its theme (mental illness, particularly dementia)?" question

How effectively did the game convey its theme (mental illness, particularly dementia)?
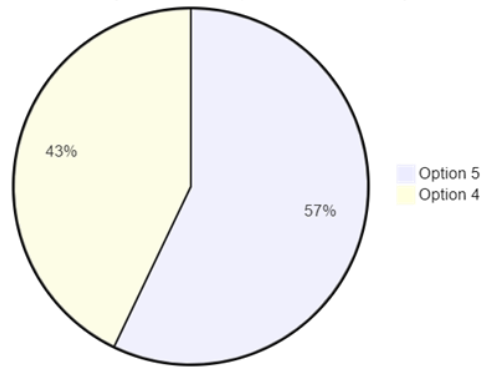
Note: Own work.

Figure 42: Pie chart for the "How would you rate the emotional impact of the game?" question

How would you rate the emotional impact of the game?
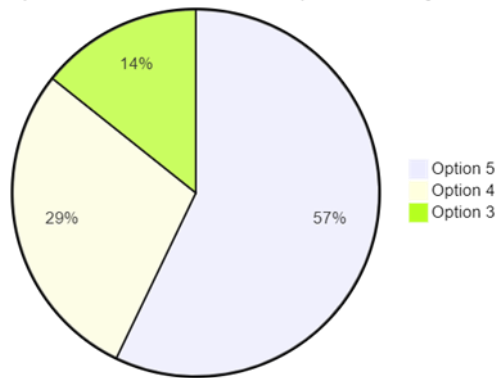
Note: Own work.

In terms of theme effectiveness and emotional impact, the game effectively conveyed its theme of representing mental illness, particularly dementia, with an average effectiveness score of 4.57 (Figure 41). The emotional impact of the game was also significant, averaging 4.43 (Figure 42).

Figure 43: Pie chart for the "Did you find the pacing of the narrative adequate?" question

Did you find the pacing of the narrative adequate?
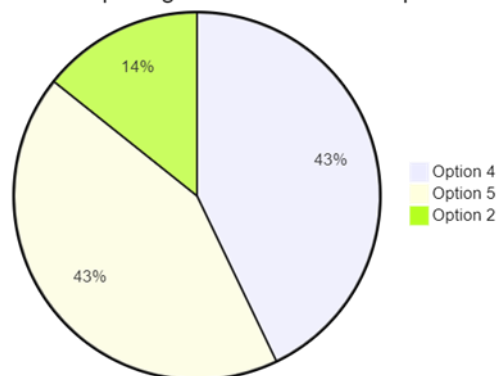
Note: Own work.

Figure 44: Pie chart for the "How intuitive were the game controls and mechanics?" question

How intuitive were the game controls and mechanics?
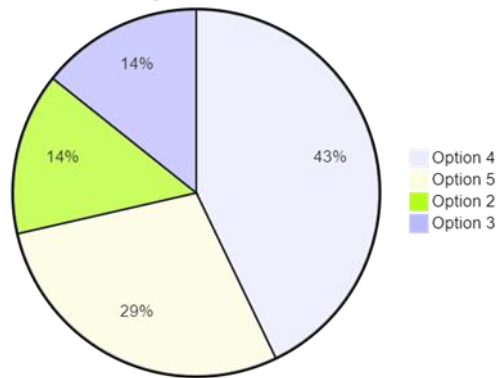
Note: Own work.

Figure 45: Pie chart for the "Were the instructions and tutorials clear an helpful?" question

Were the instructions and tutorials clear and helpful?
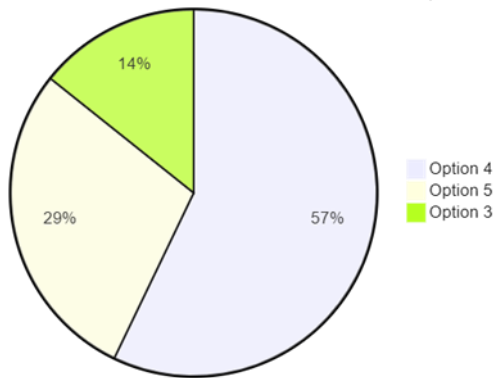
Note: Own work.

When evaluating the narrative and controls, the pacing of the narrative received mixed reviews, with an average score of 4.14 (Figure 43), indicating some room for improvement. The intuitiveness of the game controls and mechanics scored an average of 3.86 (Figure 44), suggesting that while generally well-received, there were areas that could benefit from refinement. Instructions and tutorials were found to be clear and helpful, with an average score of 4.14 (Figure 45).

Figure 46: Pie chart for the "How enjoyable were the minigames?" question

How enjoyable were the minigames (e.g., ice cream-serving, kite-flying)?
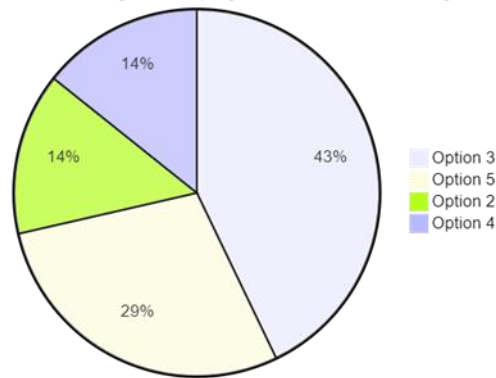
Note: Own work.

Figure 47: Pie chart for the "How well did the minigames integrate with the overall narrative?" question

How well did the minigames integrate with the overall narrative?
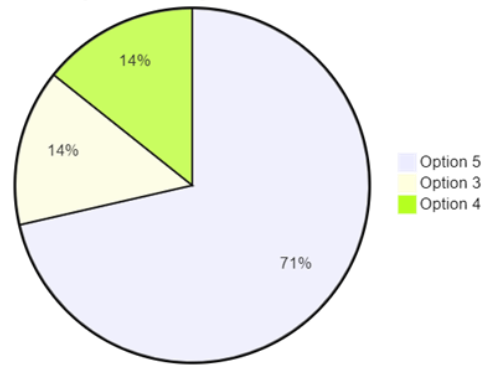
Note: Own work.

The minigames, which play a crucial role in the gameplay, received an average enjoyability score of 3.57 (Figure 46), indicating a range of responses from highly enjoyable to needing improvement. However, the integration of these minigames into the overall narrative was well-received, scoring an average of 4.57 (Figure 47).

Figure 48: Pie chart for the "How satisfied were you with the game?" question

Overall, how satisfied were you with 'Myself: Prologue'?
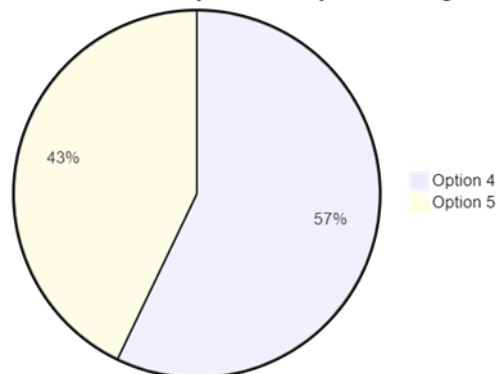
Note: Own work.

Figure 49: Pie chart for the "Would you be interested in playing the full game based on this prologue?" question

Would you be interested in playing the full game based on this prologue?
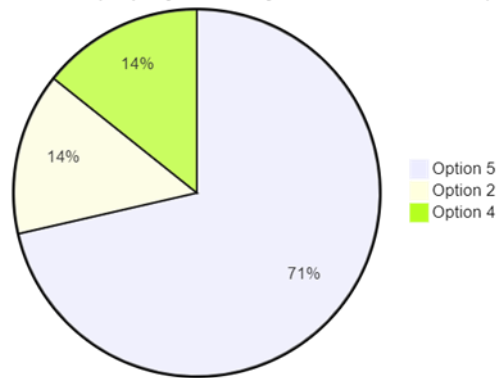
Note: Own work.

Overall satisfaction with "Myself: Prologue" was high, with an average score of 4.43 (Figure 48). Finally, when asked about their interest in playing the full game based on this prologue, respondents expressed a strong interest, with an average score of 4.43 (Figure 49). This feedback underscores the potential of the game to engage and educate players about mental health issues through its unique narrative and gameplay mechanics.

7.3. User Manual

A short user manual was created to guide players through the game. It includes an introduction with a brief overview of the game and its objectives, followed by instructions on how to navigate and interact within the game. The manual explains the core gameplay mechanics, such as collecting and managing items, playing minigames, and arranging scenes. The manual can be found in Annex B.7 below.

8. Conclusions and Future Lines of Action

Now that the prototype is ready and the world has seen it, it's time to draw some conclusions. Not just about the outcomes of the project, but also about the process in between as well.

8.1. Conclusions

Before discussing the project outcomes, one of the main conclusions from the time invested in its development is that four months is simply not enough to develop a project of this size. The journey has been a testament to sleepless dedication and creativity. Looking back, the decision to sacrifice the original vision for "Myself" and to focus on the prologue proved to be the right approach. Establishing a strong theoretical base to support the game's pillars requires a significant amount of time, leaving the remaining months for crafting a well-built design and developing the project.

That said, the main conclusion about the issues raised at the start of the project and the questions that needed to be answered is that there is always room for improvement. Using minigames, as well as other mechanics, as a vehicle for representing mental illness has proven to be possible, but for them to work effectively, they need to be engaging and robust. Feedback from both the focus group and the survey highlighted the integration of the minigames into the narrative, but at the same time, participants did not find them compelling enough.

Instead, participants emphasized the storyline and other aesthetic effects, such as screen shaking and the De Luca effect, which demonstrates that traditional storytelling devices are still the preferred means to evoke emotions in players. An exception in the case of "Myself" is the mechanic that allows players to switch the age group of the memories, which many participants highlighted as a powerful tool to understand the mind of the old man.

Regarding the other questions posed at the start of the project, there has been insufficient input from experts in mental health or aging to validate the appropriateness of the representation included in the prototype. Additionally, the devices introduced to induce emersion may have been too subtle or ineffective, as not many participants noticed their presence.

On a personal note, the line of research appears to be on the right path, but it probably needs more time and experimentation to prove that mechanics, particularly minigames, can be an effective vehicle not just for the story, but also for the dramatic tension provided by the theme.

8.2. Future Lines of Action

Looking ahead, the next steps can be built from the insights gained from the development of "Myself: Prologue." The primary lesson learned is that a project of this scope requires more than four months for proper development. Future iterations will benefit from a more extended timeline, allowing for thorough design, development, and testing phases. This extended period will ensure a more polished and comprehensive final product.

Time isn't the only factor. Since the development was the product of a project carried out by just one person, many of the roles typically involved in game development were not present. Practically all the 2D assets were generated using generative AI, and there's a lack of music and sound that could contribute to a decrease in the emotions evoked in the player. Therefore, one potential line of action could entail forming a team and filling the gap of artists and other roles that were not covered during the project's development.

Strengthening the theoretical foundation and securing comprehensive feedback from mental health and aging experts is essential. This involves continued research and consultation with experts to ensure that the representations within the game are both accurate and respectful. This step will also involve incorporating feedback from these experts into the game's design and narrative. Their insights will be invaluable in ensuring the game's accuracy and empathy.

While participants highlighted the importance of the storyline and traditional storytelling devices, future versions will not place extra emphasis on expanding the narrative depth, at least not regarding the research, since the focus is on mechanics. On the contrary, since the mechanic allowing players to switch the age group of memories was well-received, this feature will benefit from further refinement to enhance its effectiveness in helping players understand the protagonist's mind. Minigames, which showed promise as storytelling devices, will also be refined to make them more engaging.

Finally, continuing research and exploring new ways to use game mechanics and minigames as effective storytelling tools is crucial. By remaining open to innovative approaches and continuously testing new ideas, the project can evolve and improve over time.

In conclusion, while "Myself: Prologue" has made significant strides, there is still much to be done. It is the author's intention to continue this work and build upon the foundation that has been established.

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Annexes

This section contains additional information that complements the document or is too extensive to include within the main text.

Annex A: Glossary

This annex provides a list of terms commonly used within the project or found in the literature related to the theme and focus.

Adventure games	Games characterized by their emphasis on narrative and exploration, often featuring puzzle-solving elements.
Ageism	Games characterized by their emphasis on narrative and exploration, often featuring puzzle-solving elements.
Any Mental Illness (AMI)	A mental, behavioral, or emotional disorder that can vary in impact from no impairment to severe impairment.
Case Study	A research method involving the in-depth analysis of specific instances or examples to understand broader principles or phenomena.
Cognitive Narratology	An approach to narrative theory that focuses on how mental processes such as perception, memory, and imagination contribute to the construction and comprehension of stories.
Core Mechanics	The primary gameplay elements that are used repeatedly to achieve the end-game state in video games.
Dementia	A term for several diseases that affect memory, thinking, and the ability to perform daily activities, commonly impacting older adults.
Empathy	The ability to understand and share the feelings of another, which video games can foster through interactive storytelling.
Focus Group	A qualitative research method involving guided discussions with selected participants to gather feedback on specific topics or products.
Interactive Fiction	A subgenre of adventure games where the story is driven by text-based commands input by the player.
Ludonarrative Dissonance	The conflict that arises when a video game's narrative and gameplay mechanics convey conflicting messages, hindering player immersion.
Mechanics-Narrative Integration	The seamless incorporation of gameplay mechanics into the game's narrative to enhance player engagement and understanding.
Mental Illness	A clinically significant disturbance in an individual's cognition, emotional regulation, or behavior.
Minigame	A brief, self-contained game within a larger game, often used to break up the main gameplay and provide variety.
Narrative Adventure Games	Games that prioritize storytelling and character development, offering players meaningful choices that impact the story.
Narrative Devices	Techniques used in storytelling to convey plot, character development, and themes, often integrated into game mechanics.
Neurodevelopmental Disorders	Disorders that affect the development of the nervous system, leading to abnormal brain function.
Qualitative Feedback	Non-numerical insights and opinions gathered from participants, often through methods like focus groups and interviews.

Quantitative Feedback	Numerical data collected from participants, typically through surveys and statistical analysis.
Serious Mental Illness (SMI)	A mental, behavioral, or emotional disorder resulting in significant functional impairment, substantially interfering with major life activities.
Story-Driven Games	Games where the narrative is a primary component, and player actions significantly influence the storyline.
Testing	The process of evaluating a product or prototype to gather feedback and make improvements, often involving stages like focus groups and surveys.
Video Game Genre	A category of games characterized by similar features, such as gameplay style or thematic content.

Annex B: Project Deliverables

This section includes additional resources provided alongside this document. Some resources are directly included here, while others are delivered separately with descriptions provided below.

Annex B.1. Project Gantt Chart

This annex includes a higher-resolution version of the Gantt chart presented in the Planning section.

Task	Week	Start	End
MS1. Project plan	-	**24/03/2024**	**24/03/2024**
Definition of theme and focus	1	04/03/2024	10/03/2024
Detection of issues and questions	2	11/03/2024	17/03/2024
Definition of goals and writing of the project plan	3	18/03/2024	24/03/2024
MS2. State of the art and first version	-	**21/04/2024**	**21/04/2024**
Development of state of the art and theoretical framework	4+5	25/03/2024	07/04/2024
Draft of light GDD - Design of the proposal and the business model	6	08/04/2024	14/04/2024
Compilation of light FRD - Functional requirements and architecture definition	7	15/04/2024	21/04/2024
MS3. Implementation of the playable version	-	**19/05/2024**	**19/05/2024**
Final version of light GDD - Level design, storyboards, decision trees	8	22/04/2024	28/04/2024
Development of core mechanics	9	29/04/2024	05/05/2024
Development of scenes and characters	10	06/05/2024	12/05/2024
Development of UI, tests, and dissemination of the technical demo	11	13/05/2024	19/05/2024
MS4. Project report and final product	-	**16/06/2024**	**16/06/2024**
Feedback analysis and design of changes	12	20/05/2024	26/05/2024
Additional development	13+14	27/05/2024	09/06/2024
Tests and project conclusions	15	10/06/2024	16/06/2024
MS5. Oral defense	-	**30/06/2024**	**30/06/2024**
Preparation of the oral defense	16+17	17/06/2024	30/06/2024

Annex B.2. Initial Literature Lookup Database

This annex contains the complete list of queries are sources that were considered during the research phase. The searches in the table below were conducted sequentially from top to bottom. While some sources may have reappeared in subsequent searches, they are only considered selected in the initial search.

Location	Search	Results	Selected
Waterfall/suggestion	-	-	6
Google	mental illness who	2.890.000.000	1
Google	mental illness icd	26.700.000	1
Google	senile dementia who	3.150.000	2
Google	senile dementia icd	108.000	1
Web of Science	"ludonarrative dissonance" "mental illness"	0	0
Web of Science	"ludonarrative dissonance" "mental disorder"	0	0
Web of Science	"ludonarrative dissonance"	20	0
Web of Science	ludonarrative dissonance mental health	1	1
Google Scholar	"ludonarrative dissonance" "mental illness"	23	10
Google Scholar	"ludonarrative dissonance" "mental disorder"	2	0
Google Scholar	"ludonarrative dissonance" "mental health"	76	11
ResearchGate	"ludonarrative dissonance" "mental illness"	37	0
ResearchGate	"ludonarrative dissonance" "mental disorder"	3	0
ResearchGate	"ludonarrative dissonance" "mental health"	104	1
YouTube	gdc "mental health"	12.000	3
GameDeveloper	"ludonarrative dissonance" "mental illness"	2	0
GameDeveloper	"ludonarrative dissonance" "mental disorder"	2	1
GameDeveloper	"ludonarrative dissonance" "mental health"	3	0
GameDeveloper	"dissonance" "mental illness"	3	0
GameDeveloper	"dissonance" "mental disorder"	3	0
GameDeveloper	"dissonance" "mental health"	6	0
Web of Science	"minigames" "mental illness"	3	1
Web of Science	"video games" "mental	34	1

	illness"		
Google Scholar	"video games" "mental illness"	21.200	19
GameDeveloper	"mental illness"	112	2
Google Scholar	story-driven games minigames	409	8
Consensus	What is a minigame?	-	3
Web of Science	minigames	90	1
Web of Science	"mini-games"	320	0
Google Scholar	minigames	16.400	4
ResearchGate	minigames	28	1
Google	minigames	78.600.000	1
ResearchGate	"game genres"	24.100	4
Consensus	Is there a list of video game genres?	-	0
GameDeveloper	"game genres"	521	0
Consensus	Disconnect between gameplay and story	-	10
Google	disconnect between story and mechanics	134.000.000	4
Consensus	Representation of older adults in video games	-	1
Consensus	Portrayal of older adults in video games	-	3
Google	portrayal older adults video games	2.480.000.000	0
Consensus	Ageism	-	1
Total	**-**	**-**	**102**

Type	Year	Title	Origin	Search	Type	Location	Editorial	Author's country	Citations	Keywords	URL
Ludonarrative dissonance; mental illness	2019	Stories that Haunt and Heal: Mental Health and Game Narrative	YouTube	gdc "mental health"	Video	GDC	-	United States	N/A	-	https://www.youtube.com/watch?v=An5XLVhrWcE
Ludonarrative dissonance; mental illness	2018	The Unavoidable Conflict of Serious Storytelling in Video Games	GameDeveloper	"ludonarrative dissonance" "mental disorder"	Article	GameDeveloper	-	United States	N/A	-	https://www.gamedeveloper.com/game-platforms/the-unavoidable-conflict-of-serious-storytelling-in-video-games
Ludonarrative dissonance; mental illness	2017	Trauma in games: Narrativizing denied agency, ludonarrative dissonance and empathy play	Google Scholar	"ludonarrative dissonance" "mental illness"	Thesis	Education & Research Archive	University of Alberta	Canada	15	Gameplay and story integration, Agency, Trauma, Illusory agency, Game studies, Ludonarrativity, Video games, Denied agency	https://doi.org/10.7939/R30Z7196H

Ludonarrative dissonance; mental illness	2019	Featuring comedy through ludonarrative elements of video games	Google Scholar	"ludonarrative dissonance" "mental health"	Paper	Entertainment Computing	Elsevier	Finland	10	Video games, Computer games, Comedy, Humor, Narrative, Ludonarrative, Ludology, Visual design	https://doi.org/10.1016/j.entcom.2019.100304
Ludonarrative dissonance; mental illness	2022	How young adult videogames materialize senses of self through ludonarrative affects: understanding identity and embodiment through sociomaterial analysis	Web of Science	ludonarrative dissonance mental health	Paper	Learning, Media and Technology	Taylor & Francis	Canada	5	Videogames, Affect, Embodiment, Adolescence, Young adult literature	https://doi.org/10.1080/17439884.2022.2066125
Ludonarrative dissonance; mental	2022	Values throughout the Game Space	Google Scholar	"ludonarrative dissonance" "mental	Paper	Proceedings of the ACM on Human-Co	ACM Journals	United Kingdom	3	-	https://doi.org/10.1145/3549520

illness				health"		mputer Interaction					
Ludonarrative dissonance; mental illness	2021	Making Sense in a Senseless World: Disco Elysium's Absurd Hero	Google Scholar	"ludonarrative dissonance" "mental health"	Paper	Baltic Screen Media Review	Tallinna Ülikooli Balti Filmi- ja Meediakool	Estonia	3	Disco Elysium, Mental health issues, Harry DuBois, Trauma, Video game and its story	http://dx.doi.org/10.2478/bsmr-2021-0008
Ludonarrative dissonance; mental illness	2019	Vulnerability and Growth in Video Game Narratives: Approaches to Storytelling in Dark Souls 3 and Hellblade: Senua's Sacrifice	Google Scholar	"ludonarrative dissonance" "mental illness"	Thesis	NTNU Open	NTNU	Norway	2	-	http://hdl.handle.net/11250/2626670
Ludonarrative dissonance; mental illness	2021	Rotten and Possessed: Control and Hellblade: Senua's	Google Scholar	"ludonarrative dissonance" "mental health"	Paper	HT '21: Proceedings of the 32nd ACM Conference	ACM Journals	United States	2	-	https://doi.org/10.1145/3465336.3475094

		Sacrifice as Models of Outmersive Game Design				on Hypertext and Social Media					
Ludonarrative dissonance; mental illness	2023	Play the game, live the story: pushing narrative boundaries with young adult videogames	Google Scholar	"ludonarrative dissonance" "mental illness"	Paper	English Teaching: Practice & Critique	Emerald Publishing Limited	Australia	1	Secondary education, Adolescence, English language arts, New literacies, English and media, Technology and literacy	https://doi.org/10.1108/ETPC-08-2022-0105
Ludonarrative dissonance; mental illness	2019	Leveraging the Proteus Effect to Motivate Emotional Support in a Serious Game for Mental Health	Google Scholar	"ludonarrative dissonance" "mental illness"	Thesis	UWSpace	University of Waterloo	Canada	0	-	http://hdl.handle.net/10012/15199
Ludonarrative dissonance; mental	2023	The problematic space between art,	Google Scholar	"ludonarrative dissonance" "mental	Paper	F1000Research	F1000 Research Ltd	Poland	0	Digital game, Art, The Medium,	https://doi.org/10.12688/f1000research.133472.2

illness		ambition, and gameplay: The Medium and the issues concerning difficult subject matter and gameplay in games		illness"						Eudaimonic gratification, Gameplay, Ludonarrative dissonance	
Ludonarrative dissonance; mental illness	2019	Choosing a Door: Narrative Interactivity in Videogames	Google Scholar	"ludonarrative dissonance" "mental illness"	Thesis	Trinity College Digital Repository	Trinity College	United States	0	-	https://digitalrepository.trincoll.edu/theses/779/
Ludonarrative dissonance; mental illness	2022	Transformative game experiences : an autoethnography	Google Scholar	"ludonarrative dissonance" "mental illness"	Thesis	Aaltodoc	Aalto University	Finland	0	Video games, Art, Transformative experience, Self-reflection, Autoethnography, Empirical aesthetics	https://urn.fi/URN:NBN:fi:aalto-202208285114

Ludonarrative dissonance; mental illness	2024	Story Mode: The Creative Writer's Guide to Narrative Video Game Design	Google Scholar	"ludonarrative dissonance" "mental illness"	Book	-	Bloomsbury Publishing	United States	0	-	https://books.google.es/books?id=fMzlEAAAQBAJ
Ludonarrative dissonance; mental illness	2023	Playing with Cinema: The Development of Audio-Visual Style in Video Games	Google Scholar	"ludonarrative dissonance" "mental illness"	Thesis	Knowledge @UChicago	University of Chicago	United States	0	Ludology, New media, Video games, Videogames	https://doi.org/10.6082/uchicago.7587
Ludonarrative dissonance; mental illness	2015	Play Books: Expanding Education Using Gone Home as a Teachable Text	Google Scholar	"ludonarrative dissonance" "mental illness"	Paper	Alexander Pratt Portfolio	Georgia State University	United States	0	-	https://bpb-us-w2.wpmucdn.com/sites.gsu.edu/dist/a/1367/files/2016/02/Play-Books-2jbyavy.pdf
Ludonarrative dissonance; mental illness	2024	If all is cozy, what isn't? Some conceptual problems regarding	Google Scholar	"ludonarrative dissonance" "mental health"	Paper	Into the Magic Cirlce	Open Press TiU	Netherlands	0	Cozy games, Ludo-narrative dissonance, Communica	https://intothemagiccircle.org/article/view/18928

		cozy games.								tion-oriented methodology, Cozification, Cuteness	
Ludonarrative dissonance; mental illness	2023	Out-Of-Character Behavior In Side-Quests	Google Scholar	"ludonarrative dissonance" "mental health"	Thesis	Netlibrary	Universität Klagenfurt	Austria	0	Out-of-character behavior, Games, Quests, Character Design, Leve Design, MiniPXI, Hexad12, Ludonarrative Dissonance	https://netlibrary.aau.at/obvuklhs/content/titleinfo/9721339
Ludonarrative dissonance; mental illness	2015	The Play Versus Story Divide in Game Studies	Google Scholar	"ludonarrative dissonance" "mental health"	Book	-	McFarland	United States	0	-	https://books.google.es/books?id=6s_-CgAAQBAJ
Ludonarrative dissonance; mental illness	2020	Developing a Theory of Subjectivity for Video Gaming	Google Scholar	"ludonarrative dissonance" "mental health"	Thesis	YorkSpace	York University	Canada	0	Psychology	http://hdl.handle.net/10315/37854
Ludonarrati	2021	The	Google	"ludonarrati	Thesis	Trepo	Tampere	Finland	0	-	https://urn.fi/URN:NBN:fi:

ve dissonance; mental illness		Wounds That Never Healed : An Analysis of Videoludic Trauma in Cry of Fear	Scholar	ve dissonance" "mental health"			University				tuni-202105315604
Ludonarrative dissonance; mental illness	2014	Mechanics as Meaning: Examining Ludic Forms of Representation in Contemporary Video Games	Google Scholar	"ludonarrative dissonance" "mental health"	Thesis	School of Computer Science and Statistics: Publications	Trinity College Dublin	Ireland	0	-	https://publications.scss.tcd.ie/theses/diss/2014/TCD-SCSS-DISSERTATION-2014-033.pdf
Ludonarrative dissonance; mental illness	2020	New Sincerity, the Weird, and the post-ironic turn in contemporary indie video games	Google Scholar	"ludonarrative dissonance" "mental health"	Thesis	Humanities Common	University of London	United Kingdom	0	David Lynch, indie games, irony, Mark Fisher, New Sincerity, Cultural studies, Film studies	http://dx.doi.org/10.17613/5sje-w447
Ludonarrative dissonance;	2015	For the Records - Understandi	ResearchGate	"ludonarrative dissonance"	Paper	Well Played	ETC Press	United States	0	-	https://press.etc.cmu.edu/journals/well-played-vol-

mental illness		ng Mental Illness through Metaphorical Games		"mental health"								4-no-1
Mental illness; dementia	2022	Mental disorders	Google	mental illness who	Website	Fact sheets	World Health Organizatio n	-	N/A	-		https://www.who.int/news -room/fact-sheets/detail/ mental-disorders
Mental illness; dementia	2023	Mental illness	Google	mental illness icd	Website	Mental Health Information	National Institute of Mental Health	-	N/A	-		https://www.nimh.nih.gov /health/statistics/mental-il lness
Mental illness; dementia	2023	Dementia	Google	senile dementia who	Website	Fact sheets	World Health Organizatio n	-	N/A	-		https://www.who.int/news -room/fact-sheets/detail/ dementia
Mental illness; dementia	n.d.	What Is Dementia?	Google	senile dementia who	Website	Alzheimer's Association	Alzheimer's Association	-	N/A	-		https://www.alz.org/alzhe imers-dementia/what-is-d ementia
Mental illness; dementia	2024	Dementia	Google	senile dementia icd	Website	ICD-11 for Mortality and Morbidity Statistics	World Health Organizatio n	-	N/A	-		https://icd.who.int/browse /2024-01/mms/en#54668 9346
Mental illness; dementia	2022	World mental health report:	Waterfall/su ggestion	-	Report	World mental health reports	World Health Organizatio n	-	779	-		https://www.who.int/team s/mental-health-and-sub stance-use/world-mental- health-report

		transforming mental health for all									
Minigames	2017	Using games to raise awareness: How to co-design serious mini-games?	Consensus	What is a minigame?	Paper	Computers & Education	Elsevier	Belgium	67	-	https://doi.org/10.1016/j.compedu.2017.03.009
Minigames	2007	Is less actually more? The usefulness of educational mini-games	Web of Science	minigames	Paper	2007 IEEE 7th International Conference on Advanced Learning Technologies	IEEE	United Kingdom	37	Context modeling, Electronic learning, Packaging, Education, Feeds	https://doi.org/10.1109/ICALT.2007.173
Minigames	2012	Designing Educational Games by Combining Other Game Designs	Consensus	What is a minigame?	Paper	2012 IEEE 12th International Conference on Advanced Learning Technologies	IEEE	Spain	7	Video Games, Complex Decision, Game Design, Set Of Rules, Virtual World,	https://doi.org/10.1109/ICALT.2012.70

										Layer Model, Interfacial Layer, Model Scenarios, Rules Of The Game, Specific Order, Simplest Way, Levels Of Elements, Labyrinth, Persistent Levels, Game Experience, Single Definition, Layers Of Elements, Reward Mechanism, Complex Rules, Scenarios In Order, Game In	

											Order, Game Setting, Single Game, Evacuation Routes, Storytelling, Emergency Situations, Types Of Games, Use Of Representations	
Minigames	2017	Mini is beautiful: Playing serious mini-games to facilitate collective learning on complex urban processes	Google Scholar	minigames	Paper	Interaction design and architectures	University of Groningen	Netherlands	7		Serious Games, Collective Learning, Mini Games, Sustainability Transitions, Urban Governance, Spatial Planning, REFLECTION, TRANSITIO	https://hdl.handle.net/11370/93f586f0-b12e-4557-ac39-b3567611ba05

										N, MODEL	
Minigames	2016	Game Design Patterns in Endless Mobile Minigames	Google Scholar	minigames	Thesis	DiVA	Malmö högskola	Sweden	6	Game design patterns, Endless mobile game,	https://urn.kb.se/resolve?urn=urn%3Anbn%3Ase%3Amau%3Adiva-20038
Minigames	2019	Games Within Games	Consensus	What is a minigame?	Paper	Communications in Computer and Information Science	Springer	United Kingdom	2	Minigames, Narrative video games, Illusion, Make-believe, Mise-en-abyme, Chinese-box structures	https://link.springer.com/chapter/10.1007/978-3-030-37983-4_2
Minigames	2021	Extending Narrative Serious Games Using Ad-Hoc Mini-games	Google Scholar	minigames	Paper	Advances in Web-Based Learning – ICWL 2021	ICWL	Spain	2	Serious games, Narrative games, Mini-games, Game authoring, Game analytics	https://doi.org/10.1007/978-3-030-90785-3_6
Minigames	2023	What's a Mini-Game? The	Google Scholar	minigames	Thesis	OSFPreprints	Center for Open Science	Denmark	1	Computer games, Fishing,	https://doi.org/10.31219/osf.io/4g9ku

		Anatomy of Fishing Mini-Games								Game analysis, Mini games, Mini-games, Video games, Videogaming	
Minigames	2017	The game in the game- the problem of the paraludic	ResearchGate	minigames	Paper	Teksty Drugie	University of Wrocław	Poland	0	Complex games, Ludo-ontology, Metagames, Minigames, Paraludic	http://dx.doi.org/10.18318/td.2017-3.23
Minigames	n.d.	Mini-Game	Google	minigames	Website	TVTropes	-	United States	0	-	https://tvtropes.org/pmwiki/pmwiki.php/Main/MiniGame
Minigames in story-driven games	2018	Connecting player and character agency in videogames	Google Scholar	story-driven games minigames	Paper	TEXT Special Issue	TEXT	Australia	10	Creative Writing, Agency, Narrative, Choice, Freedom	https://textjournal.scholasticahq.com/article/25642.pdf
Minigames in story-driven games	2019	Unspoken Adventures: On Sound, Story, and Nonverbal	Google Scholar	story-driven games minigames	Book chapter	Playing the Field: Video Games and American Studies	Walter de Gruyter GmH	Germany	5	-	https://books.google.es/books?id=A0HEDwAAQBAJ&lpg=PA259&ots=k3XUbhgPGD&dq=rhythm%20%20%22story-driven%

		Gameplay in Journey and Inside									22%20%20games&lr&hl=es&pg=PA259#v=onepage&q=rhythm%20%20story-driven%20%20games&f=false
Minigames in story-driven games	2019	Exploring the Role of Narrative: Puzzles in Game Storytelling	Google Scholar	story-driven games minigames	Paper	DiGRA Conference	DiGRA	China	2	Narrative puzzle, narrative design, game design, interactive narrative, story-driven video games	http://www.digra.org/wp-content/uploads/digital-library/DiGRA_2019_paper_410.pdf
Minigames in story-driven games	2019	Fiction and video games : towards a ludonarrative model	Google Scholar	story-driven games minigames	Thesis	English Philosophy	University of Oulu	Finland	2	-	https://oulurepo.oulu.fi/handle/10024/13965
Minigames in story-driven games	2021	Effects of interactivity on narrative-driven games: A heuristic approach	Google Scholar	story-driven games minigames	Thesis	Master Degree in Informatics	University of Skövde	Sweden	0	Video game narrative, storytelling, interactivity, narrative-driven games, storygames	https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1567383&dswid=808

		for narrative-driven games									
Minigames in story-driven games	2012	Puzzle Art in Story Worlds: Experience, Expression and Evaluation	Google Scholar	story-driven games minigames	Paper	The Philosophy of Computer Games Conference, Madrid 2012	-	Finland	0	-	https://www.gamephilosophy.org/wp-content/uploads/confmanuscripts/pcg2012/Karhulahti%202012%20-Adventure-as-Art-The-Aesthetic-Value-of-Puzzles.pdf
Minigames in story-driven games	2021	Connecting Unspoken Elements through the Use of Leitmotif in Undertale	Google Scholar	story-driven games minigames	Poster	-	Queen's University	Australia	0	Undertale, Toby Fo, Leitmotif Rhythm, Modal Shift, Key Change, Music loop, Nostalgia, Music variation	https://qspace.library.queensu.ca/items/6bfa5613-125c-4f1b-8398-022e08092d78
Minigames in story-driven games	2011	Interactive storytelling for video games: A player-centered approach to creating	Google Scholar	story-driven games minigames	Book	-	Queen's University	Australia	0	-	https://books.google.es/books?id=QUrarEcvaO8C&lpg=PP2&ots=doIZLISCy1&dq=rhythm%20%20%22story-driven%22%20%20games&lr&hl=es&pg=PR7#v=onepage&q=rhythm%20%20%22story-dr

		memorable characters and stories										iven%22%20%20games&f=false
Treatment of mental illness	2009	Depictions of mental illnesses in children's media	Google Scholar	"video games" "mental illness"	Paper	Journal of Mental Health	Taylor & Francis	United States	231		Stigma, Mental Illness, Mass Media, Children's Attitudes	https://doi.org/10.1080/0963823031000118230
Treatment of mental illness	2017	Stigma-Stop: A Serious Game against the Stigma toward Mental Health in Educational Settings	Google Scholar	"video games" "mental illness"	Paper	Frontiers in Psychology	Frontiers	Spain	70		stigma, virtual reality, psychological disorders, serious games, human factors	https://doi.org/10.3389/fpsyg.2017.01385
Treatment of mental illness	2020	Reducing Mental Health Stigma Through Identification With Video Game Avatars With Mental	Google Scholar	"video games" "mental illness"	Paper	Frontiers in Psychology	Frontiers	United States	46		stigma, video games, transportation, identification, avatars	https://doi.org/10.3389/fpsyg.2020.02240

		Illness									
Treatment of mental illness	2019	Gaming With Stigma: Analysis of Messages About Mental Illnesses in Video Games	Google Scholar	"video games" "mental illness"	Paper	JMIR Ment Health	JMIR	Canada	40	mental disorders, social stigma, video games	https://doi.org/10.2196/12418
Treatment of mental illness	2019	Framing Mental Health Within Digital Games: An Exploratory Case Study of Hellblade	Google Scholar	"video games" "mental illness"	Paper	JMIR Ment Health	JMIR	United States	19	video games, electronic gaming, psychosis, stigma	https://doi.org/10.2196/12432
Treatment of mental illness	2017	Mental Illness in Popular Culture	Google Scholar	"video games" "mental illness"	Book	-	Praeger	United States	15	-	https://books.google.es/books?id=SIzDEAAAQBAJ&lpg=PP1&ots=5m7a8hyciE&dq=mental%20illness%20video%20games&lr&hl=es&pg=PP1#v=onepage&q=mental%20illness%20video%20games&f=false

Treatment of mental illness	2016	Graphic Depictions: Portrayals of Mental Illness in Video Games	Google Scholar	"video games" "mental illness"	Paper	Journal of Forensic Sciences	American Academy of Forensic Sciences	United States	14	forensic science, video games, mass media, mentally ill persons, mental disorders, psychiatry	https://doi.org/10.1111/1556-4029.13214
Treatment of mental illness	2020	Portraying Mental Illness in Video Games	Google Scholar	"video games" "mental illness"	Paper	Loading	Canadian Game Studies Association	United States	10	Video games, mental illness, interactivity, analysis, mechanics, design	https://doi.org/10.7202/1071449ar
Treatment of mental illness	2012	New media as a powerful ally in the representation of mental illness: YouTube, resistance and change	Waterfall/suggestion	-	Book chapter	Mental Illness and Popular Media: essays on the Representation of Disorders	McFarland & Co	United States	9	-	https://researchportal.murdoch.edu.au/esploro/outputs/bookChapter/New-media-as-a-powerful-ally/991005544660707891
Treatment	2013	Minigames	Web of	"minigames"	Paper	Games for	Mary Ann	United	5	Depressive	https://doi.org/10.1089/g

of mental illness		for Mental Health: Improving Warfighters' Coping Skills and Awareness of Mental Health Resources	Science	"mental illness"		Health Journal	Liebert, Inc.	States		disorder, Digital gaming and video games, Gaming based learning, Gaming based rehabilitation, Psychedelics, Serious games, Simulation games	4h.2013.0014
Treatment of mental illness	2022	Depiction of mental illness and psychiatry in popular video games over the last 20 years	Google Scholar	"video games" "mental illness"	Paper	Frontiers in Psychiatry	Frontiers	Czech Republic	5	mental illness, video game, psychiatry-history, psychiatric care, stigma	https://doi.org/10.3389/fpsyt.2022.967992
Treatment of mental illness	2022	Mental Health in 3D - A Dimensional	Google Scholar	"video games" "mental illness"	Paper	Loading	Canadian Game Studies Association	United States	5	Mental illness, digital games	https://doi.org/10.7202/1084842ar

		Model of Mental Illness Representation in Digital Games										
Treatment of mental illness	2021	The Power of Video Games: How Celeste and Hellblade Address Mental Health	Google Scholar	"video games" "mental illness"	Thesis	BA in Communication Studies	Cal Poly	United States	4	-		https://digitalcommons.calpoly.edu/comssp/253/
Treatment of mental illness	2022	Mental Health, Illness, Crunch, and Burnout: Discourses in Video Games Culture	Google Scholar	"video games" "mental illness"	Paper	Proceedings of the 55th Hawaii International Conference on System Sciences	University of Hawai'i	United States	3	Games and Gaming, burnout, crunch, mental health, video games		http://hdl.handle.net/10125/79719
Treatment of mental illness	2023	Representation of mental illness in video games	Google Scholar	"video games" "mental illness"	Paper	Frontiers in Human Dynamics	Frontiers	Germany	2	video games, mental illness, representation,		https://doi.org/10.3389/fhumd.2023.1155821

		beyond stigmatization								stigmatization, independent developers, depression, anxiety, dimensional representation	
Treatment of mental illness	2017	What Hellblade: Senua's Sacrifice gets wrong about mental illness	Waterfall/suggestion	-	Article	Polygon	-	United States	1	-	https://www.polygon.com/2017/9/15/16316014/hellblade-senuas-sacrifice-mental-illness
Treatment of mental illness	2022	The visual and narrative rhetoric of mental health in Gris	Web of Science	"video games" "mental illness"	Paper	Journal of Gaming & Virtual Worlds	Intellect, Ltd.	United States	0	aesthetics, cosy games, game studies, grief, mental illness, therapy games, video games	https://doi.org/10.1386/jgvw_00061_1
Treatment of mental illness	2024	A Scoping Review About The	Google Scholar	"video games" "mental	Paper	[working paper]	[working paper]	Austria	0	mental health, mental	https://nbn-resolving.org/urn:nbn:de:0168-ssoar-9

		Portrayal of Mental Illness in Commercial Video Games		illness"						disorder, computer game, representation	1960-5
Treatment of mental illness	2023	Rated T for Therapy: How Video Games Portray Mental Illness and Their Effects on Social Stigmas	Google Scholar	"video games" "mental illness"	Thesis	Master of Fine Arts (MFA)	Clemson University	United States	0	-	https://tigerprints.clemson.edu/all_theses/4036/
Treatment of mental illness	2022	How video games increase mental health awareness and assist with the treatment of mental illness?	Google Scholar	"video games" "mental illness"	Thesis	BA Game Design	University of the Arts	United Kingdom	0	-	http://lifeintheclolane.com/docs/Thesis-ChloeElford-2022.pdf
Treatment of mental illness	2017	Headspace: Video Games as a	Google Scholar	"video games" "mental	Thesis	BA Film and Media Studies	State University of New York	United States	0	-	https://static1.squarespace.com/static/5f56691eb94bfb444782261a/t/5f56

		Method for Empathizing with People with Mental Illness		illness"							7e35020c314b1ff94232/ 1599503927598/Headsp ace.pdf
Treatment of mental illness	2016	The Persuasive Power of Video Game Narratives: Addressing Empathy and Attitudes toward People with Mental Illness	Google Scholar	"video games" "mental illness"	Thesis	Master of Arts in Communica tion	Bryant University	United States	0	-	https://digitalcommons.br yant.edu/macomm/2/
Treatment of mental illness	2022	Small, personal videogames about mental health: An informal survey of Bitsy games	Google Scholar	"video games" "mental illness"	Paper	FDG '22: Proceeding s of the 17th International Conference on the Foundations of Digital Games	ACM Digital Library	Estonia	0	-	https://doi.org/10.1145/3 555858.3555917
Treatment of mental illness	2022	Rewriting the horrors of mental	GameDevel oper	"mental illness"	Blog post	Game Developer	Game Developer	United States	0	-	https://www.gamedevelo per.com/design/rewriting- the-horrors-of-mental-he

		health representation in games							0	-	alth-representation-in-games
Treatment of mental illness	2016	Unpacking the stigma of mental illness in The Town of Light	GameDeveloper	"mental illness"	Blog post	Game developer	Game developer	United States	0	-	https://www.gamedeveloper.com/design/unpacking-the-stigma-of-mental-illness-in-i-the-town-of-light-i-
Treatment of mental illness	2019	How to Represent Mental Illness in Games	YouTube	gdc "mental health"	Video	GDC	-	United States	0	-	https://www.youtube.com/watch?v=ozLyCFbklv8
Treatment of mental illness	2022	Reducing Mental Health Stigma With Video Games	YouTube	gdc "mental health"	Video	Ninja Theory	-	United States	0	-	https://www.youtube.com/watch?v=HM0yaCFwHDE
Treatment of mental illness	2014	Ether One: The Video Game That Tries to Simulate Dementia	Waterfall/suggestion	-	Article	The New Yorker	-	United States	0	dementia, video games	https://www.newyorker.com/business/currency/ether-one-video-game-tries-simulate-dementia
Treatment of mental illness	2018	Before I Forget: the video game that tackles	Waterfall/suggestion	-	Article	The Guardian	-	United Kingdom	0	games, dementia, mental health	https://www.theguardian.com/games/2018/jun/06/before-i-forget-early-ons

											et-dementia-video-game
Treatment of older adults	2022	Representation and inclusion of the elderly in video games and recreational experiences	Waterfall/suggestion	-	Paper	CEUR Workshop Proceedings	-	Spain	0	inclusive games, ageing, old people, videogames, research through design	https://ceur-ws.org/Vol-3082/paper9.pdf
Game genres	2014	Facet Analysis of Video Game Genres	ResearchGate	"game genres"	Paper	iConference 2014 Proceedings	iSchools	United States	55	genre, facet analysis, video game, interactive media	https://doi.org/10.9776/14057
Game genres	2015	The Game Genre Map	ResearchGate	"game genres"	Paper	CHI PLAY '15: Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play	ACM	United Kingdom	22	-	https://doi.org/10.1145/2793107.2793123
Game genres	2009	Video Game Genre, Evolution	ResearchGate	"game genres"	Paper	Eludamos: Journal for Computer	Septentrio Academic Publishing	Canada	192	-	http://dx.doi.org/10.7557/23.6003

		and Innovation				Game Culture					
Game genres	2018	Making Sense of Genre: The Logic of Video Game Genre Organization	ResearchGate	"game genres"	Paper	Games and Culture	Sage	Spain	24	-	http://dx.doi.org/10.1177/1555412017751803
Disconnect between gameplay and story	2017	Wordless Games: Gameplay as Narrative Technique	Consensus	Disconnect between gameplay and story	Paper	Lecture Notes in Computer Science	Springer	Singapore	8		https://link.springer.com/chapter/10.1007/978-3-319-71027-3_12
Disconnect between gameplay and story	2019	Narrative and Gameplay: The Balanced and Imbalanced Relationship between Dramatic Tension and Gameplay Tension	Consensus	Disconnect between gameplay and story	Paper	Proceedings of the 9th International Conference on Digital and Interactive Arts	ACM	Portugal	3		https://doi.org/10.1145/3359852.3359906
Disconnect between	2011	Games, narrative	Consensus	Disconnect between	Paper	International Journal of	InderScience	Canada	34		https://www.inderscience.com/offers.php?id=4344

gameplay and story		and the design of interface		gameplay and story		Arts and Technology					[5]
Disconnect between gameplay and story	2019	Gameplay, Emotions and Narrative: Independent Games Experienced	Consensus	Disconnect between gameplay and story	Book	-	ETC Press	United States	3		https://press.etc.cmu.edu/books/gameplay-emotions-and-narrative
Disconnect between gameplay and story	2020	Narrative Goals in Games: A Novel Nexus of Story and Gameplay	Consensus	Disconnect between gameplay and story	Paper	Proceedings of the 15th International Conference on the Foundations of Digital Games	ACM	United States	7		https://doi.org/10.1145/3402942.3402986
Disconnect between gameplay and story	2023	Narrative selfies and player–character intimacy in interface games	Consensus	Disconnect between gameplay and story	Paper	Eludamos: Journal for Computer Game Culture		Poland	0	intimacy, consent, selfies, interface games	https://doi.org/10.7557/23.6588
Disconnect between gameplay and story	2019	The Development and Evaluation	Consensus	Disconnect between gameplay and story	Paper	2019 11th International Conference on Virtual	IEEE	Netherlands	3		https://doi.org/10.1109/VS-Games.2019.8864538

		of the Storyline Scaffolding Tool				Worlds and Games for Serious Applications (VS-Games)					
Disconnect between gameplay and story	2019	Bringing Art to Life: Examining Poetic Gameplay Devices in Interactive Life Stories	Consensus	Disconnect between gameplay and story	Paper	Games and Culture	SageJournals	Singapore	12		https://doi.org/10.1177/1555412019853372
Disconnect between gameplay and story	2004	Death with a story: How story impacts emotional, motivational, and physiological responses to first-person shooter video games	Consensus	Disconnect between gameplay and story	Paper	Human Communication Research	Oxford Academic	United States	342		https://doi.org/10.1111/j.1468-2958.2004.tb00736.x
Disconnect between gameplay	2015	Narrative Structure and Player	Consensus	Disconnect between gameplay	Paper	International Journal of Human-Co	Taylor and Francis	United States	28		https://doi.org/10.1080/10447318.2014.986639

and story		Experience in Role-Playing Game		and story		mputer Interaction					
Disconnect between gameplay and story	2019	When Theme and Mechanics Collide	Google	disconnect between story and mechanics	Article	GameDeveloper	-	United States	0		https://www.gamedeveloper.com/design/when-theme-and-mechanics-collide
Disconnect between gameplay and story	2024	Ludonarrative Dissonance: Gameplay vs Narrative	Google	disconnect between story and mechanics	Article	Medium	-	Turkey	0		https://medium.com/@omerekit500/ludonarrative-dissonance-gameplay-vs-narrative-65e75890f04f
Disconnect between gameplay and story	2013	Balancing Narrative And Gameplay	Google	disconnect between story and mechanics	Article	GameDeveloper	-	United Kingdom	0		https://www.gamedeveloper.com/design/balancing-narrative-and-gameplay
Disconnect between gameplay and story	2017	Verificación de patrones en la relación entre mecánicas y las emociones que éstas generan en los jugadores	Google	disconnect between story and mechanics	Thesis	CRAI Biblioteca	Universidad Autónoma de Occidente	Colombia	0		http://hdl.handle.net/10614/9627

		en los videojuegos del género de rol									
Treatment of older adults	2018	Designing the Lost Self: Older Adults' Self-representations in Online Games	Consensus	Representation of older adults in video games	Paper	Proceedings of the 2018 Designing Interactive Systems Conference		Australia	15		https://doi.org/10.1145/3196709.319677
Treatment of older adults	2006	Older Characters in Children's Animated Television Programs: A Content Analysis of Their Portrayal	Consensus	Portrayal of older adults in video games	Paper	Journal of Broadcasting & Electronic Media	Taylor & Francis	United States	37		https://doi.org/10.1207/s15506878jobem5002_7
Treatment of older adults	2007	Representations of older adults in television advertisements	Consensus	Portrayal of older adults in video games	Paper	Journal of Aging Studies	ScienceDirect	United States	89		https://doi.org/10.1016/j.jaging.2006.04.001
Treatment of older	2007	The portrayal of	Consensus	Portrayal of older adults	Paper	Journal of Aging	ScienceDirect	United States	86		https://doi.org/10.1016/j.j

adults		older characters in Disney animated films		in video games		Studies					aging.2006.10.001
Treatment of older adults	2016	Progress on Understanding Ageism	Consensus	Ageism	Paper	Journal of Social Studies	Society for the Psychological Study of Social Issues	United States	163		https://doi.org/10.1111/josi.12153

Annex B.3. Game Analysis Review Cards

This annex contains all the review cards used to analyze games in the State of the Art section.

Before I Forget

Name	Before I Forget			
Release date	2020-07-16			
Developer	3-Fold Games			
Publisher	3-Fold Games			
Platform(s)	Linux, macOS, Windows, Switch, Xbox One, Xbox Series X/S			
Genre(s)	Walking simulator			
Synopsis	The game follows Sunita Appleby, a scientist who has early-onset Alzheimer's disease and suffers from memory loss, through her house. Players navigate Sunita's house, uncovering clues and memories that reveal fragments of her life, relationships, and experiences.			
Mechanics and aesthetics	Narrative exploration Environmental storytelling Unique aesthetics			
Which mental illness or other sensitive issue is represented?	Alzheimer's disease, dementia			
Does the portrayed issue affect older adults?	Yes	**No**	The character with mental illness has early-onset Alzheimer's disease, which is manifested before the age of 65.	
Is the portrayal of the issue dimensional?	1D	2D	**3D**	Both the setting and the character represent with depth and nuance the mental illness.
Does the portrayal of the issue result in negative stereotypes?	**Yes**	No	Even though the studio was advised by experts, some critic opinions argue against the inappropriateness of getting trophies just by exploring the life of a broken woman and due to the ending, even if ambiguous, seems to romanticize suicide as a way out.	
Are there minigames in the game?	Yes	**No**	Since the mechanics of the game are so basic, finding the constellations with the templates are probably a core mechanic rather than a minigame.	
What is the significance of minigames compared to other gameplay elements?	N/A			
Are the minigames thematically connected to the main storyline or theme?	Yes	**No**	N/A	
Are the minigames connected to the portrayed issue?	Yes	**No**	N/A	
Are the mechanics of the overarching game connected to the main storyline or theme?	**Yes**	No	Being narrative exploration the only mechanic, yes, it's connected to the main storyline because it helps understand the journey of the character.	
Are the mechanics of the overarching game connected to the portrayed issue?	**Yes**	No	Same answer as previous criterion.	
Does emersion occur in the game?	Yes	**No**	No emersion observed.	
Does emersion occur	Yes	**No**	N/A	

intentionally?			
Does emersion positively impact the narrative?	Yes	**No**	N/A

Ether One

Name	Ether One
Release date	2014-03-25
Developer	White Paper Games
Publisher	White Paper Games
Platform(s)	Windows, PlayStation 4
Genre(s)	First-person adventure
Synopsis	Players assume the role of a "Restorer," tasked with entering the mind of a woman named Jean to reconstruct her memories and restore her identity.
Mechanics and aesthetics	Narrative exploration Item collecting Puzzle solving
Which mental illness or other sensitive issue is represented?	Dementia

Does the portrayed issue affect older adults?	**Yes**	No		The character with mental illness is 69 years old.
Is the portrayal of the issue dimensional?	1D	**2D**	3D	There's no depth or nuance the character. The portrayal lacks to effectively reflect most of the symptomatology related to dementia.
Does the portrayal of the issue result in negative stereotypes?	**Yes**	No		The portrayal intentionally reinforces the confusion usually related to dementia to raise awareness, but it doesn't provide positive representations.
Are there minigames in the game?	**Yes**	No		Due to puzzle-solving being the main mechanic, the game is actually a compilation of minigames with a story-driven approach.
What is the significance of minigames compared to other gameplay elements?	Minigames occupy approximately the 80% of the game. The rest is distributed between exploration and environmental narrative.			
Are the minigames thematically connected to the main storyline or theme?	Yes	**No**		Even if solving the puzzles contribute to the main theme, the minigames itself do not reflect any story-related or character-related characteristics. Some critics refer to gaming agoraphobia due to the large quantity of puzzles to solve with no reason in a large open space.
Are the minigames connected to the portrayed issue?	Yes	**No**		Even if solving the puzzles contribute to the knowledge about the condition of the character, the minigames do not reflect any characteristic associated to it.
Are the mechanics of the overarching game connected to the main storyline or theme?	**Yes**	No		Being narrative exploration the only other mechanic, yes, it's connected to the main storyline because it helps understand the journey of the character.
Are the mechanics of the overarching game connected to the portrayed issue?	**Yes**	No		Same answer as previous criterion.
Does emersion occur in the game?	**Yes**	No		Since the puzzles represent the main mechanic of the game and they are not connected to the story or the theme, players are often thrown out of

			the narrative.
Does emersion occur intentionally?	Yes	**No**	N/A
Does emersion positively impact the narrative?	Yes	**No**	No. Immersion is constantly lost due to the reasons commented before.

Heal

Name	Heal
Release date	2020-04-10
Developer	Ratalaika Games
Publisher	Ratalaika Games
Platform(s)	PlayStation 5, Switch, Xbox One, PlayStation 4, Windows, Xbox Series X/S
Genre(s)	Point-and-click puzzle adventure
Synopsis	Players take on the role of an unnamed old man who wakes up in a strange, dream-like world filled with puzzles and mysteries.
Mechanics and aesthetics	Narrative exploration Puzzle solving Unique aesthetics
Which mental illness or other sensitive issue is represented?	Aging, unspecified disorder involving memory loss

Does the portrayed issue affect older adults?	**Yes**	No	The character suffering from memory loss is an older man, age unspecified.

	1D	**2D**	3D	
Is the portrayal of the issue dimensional?	1D	**2D**	3D	The player needs to assume the issues of aging and memory loss through the flashbacks unlocked with the puzzles. There's no depth or nuance to the character. The surrealism of the setting tries in vain to reflect dementia or other age-related disorder.

Does the portrayal of the issue result in negative stereotypes?	**Yes**	No	The portrayal intentionally reinforces the isolation and loneliness usually related to aging and memory-related disorders to raise awareness, but it doesn't provide positive representations.
Are there minigames in the game?	**Yes**	No	Due to puzzle-solving being the main mechanic, the game is actually a compilation of minigames with a story-driven approach.
What is the significance of minigames compared to other gameplay elements?			Minigames occupy approximately the 80% of the game. The rest is distributed between exploration and environmental narrative.
Are the minigames thematically connected to the main storyline or theme?	Yes	**No**	Even if solving the puzzles contribute to the main theme, the minigames itself do not reflect any story-related or character-related characteristics.
Are the minigames connected to the portrayed issue?	Yes	**No**	Even if solving the puzzles contribute to the knowledge about the condition of the character, the minigames do not reflect any characteristic associated to it.
Are the mechanics of the overarching game connected to the main storyline or theme?	**Yes**	No	Being narrative exploration the only other mechanic, yes, it's connected to the main storyline because it helps understand the journey of the character.
Are the mechanics of the overarching game connected to the portrayed issue?	**Yes**	No	Same answer as previous criterion.

Does emersion occur in the game?	**Yes**	No	Since the puzzles represent the main mechanic of the game and they are not connected to the story or the theme, players are often thrown out of the narrative.
Does emersion occur intentionally?	Yes	**No**	It could be argued that the surrealism of the setting tries to reflect the characteristics of dementia or other age-related disorders.
Does emersion positively impact the narrative?	Yes	**No**	No. Immersion is constantly lost due to the reasons commented before.

Arise: A Simple Story

Name	Arise: A Simple Story
Release date	2019-12-03
Developer	Piccolo Studio
Publisher	Untold Tales, Techland
Platform(s)	PlayStation 4, Windows, Xbox One, Switch
Genre(s)	Puzzle-platform
Synopsis	After an older tribesman dies and is placed on a funeral pyre, he relives his memories in the afterlife. Players guide him through various puzzles representing his good and bad memories.
Mechanics and aesthetics	Platforming Time manipulation Environmental puzzle solving Item collecting
Which mental illness or other sensitive issue is represented?	Aging, probable memory-related issue

Does the portrayed issue affect older adults?	**Yes**	No		The character reliving his memories is an old man
Is the portrayal of the issue dimensional?	1D	**2D**	3D	The player needs to assume the issues of aging and memory through the memories collected in the game. There's no depth or nuance to the character.
Does the portrayal of the issue result in negative stereotypes?	**Yes**	No		The portrayal intentionally reinforces the isolation and loneliness usually related to aging and memory-related disorders to raise awareness, but it doesn't provide positive representations.
Are there minigames in the game?	Yes	**No**		Even if puzzle solving is one of the main mechanics, puzzles fall into the environmental category rather than in minigames.
What is the significance of minigames compared to other gameplay elements?	N/A			
Are the minigames thematically connected to the main storyline or theme?	Yes	**No**		N/A
Are the minigames connected to the portrayed issue?	Yes	**No**		N/A
Are the mechanics of the overarching game connected to the main storyline or theme?	Yes	**No**		Not necessarily. The only mechanic related to the story or theme is collecting the memories, but neither the platforming or the time manipulation contribute to the story or the theme.
Are the mechanics of the	Yes	**No**		Same answer as previous criterion.

overarching game connected to the portrayed issue?			
Does emersion occur in the game?	Yes	**No**	Not observed. Since there is no narrative exploration, the game and the story feel rather disconnected, but there is not sudden change in gameplay or narrative that triggers emersion,
Does emersion occur intentionally?	Yes	**No**	N/A
Does emersion positively impact the narrative?	Yes	**No**	N/A

Old Man's Journey

Name	Old Man's Journey		
Release date	2017-05-18		
Developer	Broken Rules		
Publisher	Broken Rules		
Platform(s)	Android, iOS, macOS, Windows, Switch, PlayStation 4, Xbox One		
Genre(s)	Adventure game		
Synopsis	The game follows the trip of an old man, who starts to travel after receiving a letter containing some news. Throughout the game, some semi-still flashbacks explain the past life of the man.		
Mechanics and aesthetics	Environmental puzzle solving.		
Which mental illness or other sensitive issue is represented?	Aging		
Does the portrayed issue affect older adults?	**Yes**	No	The character reliving his memories is an old man
Is the portrayal of the issue dimensional?	1D	**2D**	3D	There's no depth or nuance to the character until the end.
Does the portrayal of the issue result in negative stereotypes?	Yes	**No**	During the whole game, no harmful stereotypes are shown towards any characters.
Are there minigames in the game?	Yes	**No**	Even if puzzle solving is one of the main mechanics, puzzles fall into the environmental category rather than in minigames.
What is the significance of minigames compared to other gameplay elements?	N/A		
Are the minigames thematically connected to the main storyline or theme?	Yes	**No**	N/A
Are the minigames connected to the portrayed issue?	Yes	**No**	N/A
Are the mechanics of the overarching game connected to the main storyline or theme?	Yes	**No**	Not necessarily. The only mechanic related to the story or theme is unlocking the memories, but the environment manipulation contribute to the story or the theme.
Are the mechanics of the overarching game connected to the portrayed issue?	Yes	**No**	Same answer as previous criterion.
Does emersion occur in the	Yes	**No**	Not observed. Since there is no narrative exploration, the game and the

game?			story feel rather disconnected, but there is not sudden change in gameplay or narrative that triggers emersion,
Does emersion occur intentionally?	Yes	**No**	N/A
Does emersion positively impact the narrative?	Yes	**No**	N/A

Annex B.4. Game Proposal

This annex contains the three-page document designed to outline the core aspects of the idea and convince potential stakeholders of its uniqueness.

MYSELF

(Working title)

Game Proposal

Salvador Banderas Rovira

MYSELF

The inexorable passage of time

(Working title)

SYNOPSIS

Embark on a heartfelt journey through an elderly man's fragmented memories, distorted by the fog of time. Explore frozen scenes from his past—childhood innocence, adolescent turbulence, adult triumphs, and twilight reflections— as you uncover hidden narratives within cherished mementos like faded photographs and haunting melodies. Rearrange these fragments to reveal deeper truths about the intricacies of memory and the inexorable passage of time. Can you piece together the puzzle of his fading recollections before the mysteries are lost to the shadows of time?

GAME PILLARS

MYSELF is an adventure game that blends point-and-click mechanics with short, casual puzzles, all while emphasizing narrative depth and the representation of mental illness and older adults. The game provides a balanced experience, catering to players seeking a challenge as well as those who prefer a seamless journey focused on the story.
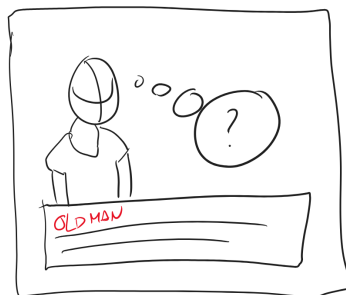
OBJECTIVE

The goal of the game is to unravel the mysteries surrounding the old man's memories, gain insight into his life story, and navigate the challenges presented by dementia. Through exploration and puzzle-solving, players will embark on a journey of understanding and empathy, delving deep into the protagonist's past and experiences.

USP

- **Deep Narrative Exploration.** A thought-provoking story that explores the challenges of mental illness and aging.

- **Emotional Engagement.** Experience empathy and understanding through the portrayal of dementia using story-driven mechanics and interactive storytelling.

- **Realistic Representation.** Respectful and realistic depiction of mental illness and aging, informed by thorough research and expert consultation.

- **Accessible Gameplay.** A balanced experience tailored for both casual and dedicated gamers, allowing players to choose between challenging gameplay or a more narrative-focused journey.

- **Unique Art Style.** A visually captivating 2.5D world enriched with a varied color palette that conveys different emotions, enhanced by the innovative use of the De Luca Effect to evoke a distinct atmosphere and enhance storytelling.

DE LUCA EFFECT

The De Luca Effect, named after comic artist Gianni de Luca, describes a technique that merges multiple temporalities or moments in time within a single image. This approach enables the depiction of various events, actions, or scenes occurring simultaneously, resulting in a dynamic and layered visual narrative.

In the context of MYSELF, the De Luca Effect is utilized to portray the fragmented memories experienced by the protagonist. Following specific interactions, scenes within the game unveil new information about a memory by introducing events that closely relate to those previously depicted within the same scene.

MECHANICS

- **Collecting Information and Items.** Players interact with elements in each scene to gather data or acquire items crucial to the narrative progression.

- **Managing Information and Items.** Players can review the collected data and items, providing insights and clues essential for understanding the storyline.

- **Using Information and Items.** Using the gathered data and items, players can manipulate elements within the scene to advance further in the game.

- **Playing Minigames.** Players will encounter diverse minigames spanning various genres such as rhythm games and puzzles. Completing these challenges unlocks access to new scenes.

- **Arranging Scenes in Time.** Players can manipulate the chronological order of scenes, categorizing them into different life stages (childhood, adolescence, adulthood, and old age), creating alterations within the narrative, potentially uncovering hidden details, and altering the course of events.
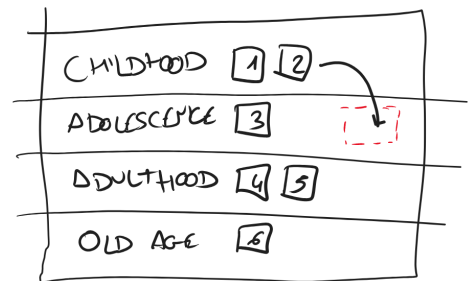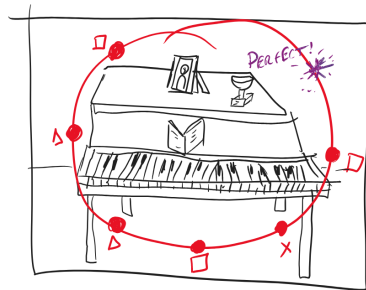
LEVELS

The game diverges from traditional level structures. Each scene represents a static memory that can evolve by:

- Interacting with a scene can trigger the application of the De Luca Effect, introducing new information or altering the scene in meaningful ways.

- By assigning a scene to a different age group, players can dynamically change certain aspects of the scene.

Progression through the game is gated by minigames of varying genres (such as rhythm games and puzzles), each serving as a key to unlock subsequent scenes.

3

Annex B.5. Functional Requirements Document

This annex contains the document that was created to provide a technical blueprint for development, specifying the functional and non-functional requirements needed to realize the game proposal.

Myself - Functional Requirement Document (FRD)

1. Introduction

The purpose of this document is to outline the functional requirements for the development of the digital game "Myself." "Myself" is a point-and-click adventure game where an old man narrates memories of his life, but soon realizes that something is wrong. The memories are incomplete and sometimes even wrong, creating a mysterious and engaging narrative for the player. The game allows players to explore scenes, collect mementos, and interact with objects to progress through the story and uncover the truth.

This document serves as a guide for the developer to understand and implement the necessary features and functionalities of the game. It provides detailed descriptions of each component, user stories, business rules, and process flows that are essential for creating a cohesive and immersive gameplay experience.

This text is intended to be a **live document** throughout the development and implementation process of the game "Myself," meaning that it is subject to ongoing updates, revisions, and enhancements as the project progresses and new information becomes available. As the developer gains more insights, receives feedback, and makes decisions during the development lifecycle, this document will be updated to reflect any changes or refinements to the functional requirements. It is important to treat this document as a dynamic resource that evolves alongside the project.

The live nature of this document ensures that it remains relevant and aligned with the evolving needs of the project stakeholders and end-users. It allows for flexibility and adaptability to incorporate new ideas, address emerging challenges, and incorporate valuable feedback received during the development and testing phases.

1.1. Document audience

This document is intended for the project stakeholders involved in the development of the game "Myself," which serves as the Final Project for a Master's Degree in Game Design and Development. The audience includes the author, acting as developer, and the teaching staff involved in the development of the project. It provides a comprehensive overview of the functional requirements and user needs, helping all parties understand the project goals.

1.2. Scope

This document serves as a comprehensive guide outlining the functional requirements, user stories, business rules, workflows, error management, use cases, roles and responsibilities, and various requirements for the development of the game "Myself." It aims to provide a clear understanding of the game's features, functionalities, and user interactions to guide the author and stakeholders involved in the project.

The scope of this document encompasses the following aspects:

- **Functional requirements:** This document details the specific features, capabilities, and behaviors that the game "Myself" should exhibit to meet the needs of its players. It defines the core functionalities of each component, the interactions between them, and the overall user experience.

- **User stories:** The document includes user stories that capture the needs, goals, and motivations of the players within each component. These user stories serve as a basis for designing player-centric features and ensuring the game effectively addresses the narrative and interactive challenges.
- **Business rules:** The document provides a set of business rules that define the guidelines, constraints, and operational policies governing the behavior of the game. These rules ensure consistency, accuracy, and compliance with the intended purpose and objectives of the game.
- **Workflows:** The document outlines the business workflows for each component, illustrating the step-by-step processes and interactions involved in the game's functionalities. It captures the logical flow of activities and guides users through the intended sequence of actions within each component. It also identifies potential error scenarios and outlines their handling when necessary.
- **Use cases:** The document presents a set of use cases that illustrate the various scenarios and interactions that players may encounter while playing "Myself." These use cases depict real-life situations, capturing the intended behaviors and outcomes of the system from the player's perspective.

The scope of this document does not include detailed technical implementation specifications or system architecture. It focuses primarily on capturing the functional requirements, user perspectives, and related guidelines to support the development and understanding of the game "Myself."

1.3. Document roles and responsibilities

This section outlines the roles and responsibilities of key individuals involved in the development of the game "Myself." It provides a clear understanding of the specific roles each party plays in the project and their respective responsibilities. By defining these roles, the document aims to establish a collaborative and efficient environment for the successful development of the game.

- **Developer:** The author, acting as the developer, is responsible for the design, implementation, and overall development of the game "Myself." This includes gathering requirements, designing system architecture, developing features, conducting testing, and ensuring the game meets the specified requirements and provides an engaging player experience. The developer also coordinates with the teaching staff to incorporate feedback and make necessary adjustments throughout the development process.
- **Stakeholders:** The teaching staff involved in the final project serve as stakeholders. They provide guidance, feedback, and evaluation throughout the development of the game. Their responsibilities include reviewing progress, offering insights and suggestions, and ensuring the project aligns with the academic standards and objectives of the Master's Thesis. The teaching staff also contribute to decision-making processes to ensure the game meets educational and project requirements.

2. Product overview

The game "Myself" is an innovative point-and-click adventure game where players explore the fragmented memories of an old man who realizes something is wrong with his recollections. The game immerses players in a journey through various stages of the old man's life, uncovering hidden truths and solving puzzles that reveal the complete narrative. With its engaging storyline and interactive gameplay, "Myself" aims to provide a unique and thought-provoking experience.

The game consists of several interconnected components, each serving a specific purpose and enhancing the player's experience. Players navigate through different scenes representing childhood, adolescence, adulthood, and old age, interacting with objects, collecting mementos, and triggering events that evolve the scenes dynamically. By following the narrative, players piece together the old man's memories, progressing through the game by solving puzzles and engaging in mini-games. This approach promotes an immersive and meaningful gameplay experience, encouraging players to explore and reflect on the storyline.

2.1. Background

Video games have become a significant part of modern culture, serving as both entertainment and a means of social interaction. The debates over their status as art have largely been settled, and attention has shifted towards examining their impact on society. One of the most scrutinized aspects of video games in recent years is representation. Today, discussions about a game inevitably consider how it portrays the world, its characters, and the stories it tells.

Representation is crucial, especially when it comes to stigmatized groups such as individuals living with mental illness. Unfortunately, mental illness is often underrepresented in video games, and when it is depicted, the portrayal is frequently inaccurate and harmful. Commonly represented conditions like depression and anxiety still face issues of misrepresentation, while other conditions such as senile dementia, schizophrenia, or bipolar disorder are often overlooked. This lack of visibility perpetuates stereotypes and contributes to the misunderstanding and stigmatization of mental illness.

The motivation behind the development of the game "Myself" stems from a personal and professional desire to address these issues. The author has witnessed the effects of mental illness, particularly senile dementia, on close family members. This experience has prompted a critical examination of how mental illness is portrayed in video games and how these portrayals can be improved to provide more accurate and empathetic representations.

"Myself" aims to fill this niche by integrating the representation of mental illness, specifically senile dementia, into the core mechanics of the game. By using minigames as narrative devices, "Myself" seeks to offer a more immersive and accurate portrayal of the lived experiences of individuals with mental illness. This approach not only enhances the narrative but also provides players with a deeper understanding of the challenges faced by those living with these conditions.

The game's design is rooted in addressing both the primary and secondary issues related to the representation of mental illness in video games. The primary issue is the disconnect between game mechanics and the theme of mental illness. Many games fail to integrate these experiences effectively into their core mechanics, leading to a dissonance that can be harmful to players' perceptions. "Myself" aims to bridge this gap by ensuring that the portrayal of mental illness is central to the gameplay experience.

Secondary issues include the poor representation of mental illness, which often resorts to harmful stereotypes and lacks depth. "Myself" addresses these issues by avoiding stereotypes and ensuring that its depictions are accurate and respectful. The project incorporates feedback from medical experts and individuals with mental illness to achieve this goal.

The primary objective of "Myself" is to develop a story-driven adventure game that accurately portrays mental illness and integrates it into the core mechanics. The game aims to provide players with an immersive journey where the mechanics echo the game's narrative, offering a profound understanding of the challenges faced by individuals living with mental illness.

In addition to its primary objectives, "Myself" also seeks to explore the potential of emersion as a narrative tool. By leveraging the disconnect between game mechanics and narrative representation, the game aims to create an immersive and thought-provoking experience that challenges players' perceptions of mental illness.

The development of "Myself" is informed by an analysis of existing video games that tackle similar themes. This analysis has revealed that while some games achieve a balance between mechanics and narrative, they often fail to integrate mental illness into the core gameplay. "Myself" aims to fill this gap by providing a more holistic approach to the representation of mental illness in video games.

In conclusion, "Myself" aspires to contribute to the evolving landscape of interactive storytelling by demonstrating the medium's capacity to handle complex themes and deliver profound narrative experiences. By offering a game that accurately and empathetically represents mental illness, "Myself" aims to foster a greater understanding and awareness among players, ultimately challenging and changing perceptions about mental health.

2.2. Boundaries

The game "Myself" operates within certain boundaries to ensure a focused and streamlined player experience. These boundaries include:

- **Target Audience:** The game is designed for players who enjoy story-driven adventure games and are interested in exploring complex themes such as memory and mental illness.

- **Scope of Representation:** While the game aims to portray mental illness, specifically senile dementia, it is not intended to serve as a comprehensive educational tool or substitute for professional medical advice.

- **Gameplay Mechanics:** The game uses minigames and narrative-driven exploration as its core mechanics. It does not include elements such as real-time action or multiplayer gameplay.

- **Content Limitations:** The game focuses on a single narrative thread and does not provide multiple branching storylines or extensive side quests.

- **Player Interaction:** The game does not facilitate direct communication between players, as it is a single-player experience.

- **Data Privacy:** The game does not collect or provide access to personal contact information of players. All player data related to game progress is stored locally or in a secure cloud environment, depending on the platform.

Additionally, it is important to note that while "Myself" encourages players to follow the narrative progression for an optimal experience, players have the flexibility to explore scenes and interact with objects in a non-linear fashion based on their preferences and gameplay style.

2.3. Product roles and responsibilities

This section highlights the roles and responsibilities of different user groups who will engage with the game "Myself." It outlines the key responsibilities and activities expected from players and the developer. By defining these roles and responsibilities, the document aims to ensure a clear understanding of user expectations and facilitate effective utilization of the game to provide an immersive and meaningful experience.

- **Players:** Players are the primary users of the game "Myself." They are responsible for navigating through the various scenes, interacting with objects, collecting mementos, and participating in minigames. Players engage with the narrative, uncover hidden truths, and solve puzzles to progress through the story. They provide feedback on their experience, which can be used to make improvements and adjustments to the game.
- **Developer:** The developer, who is also the author of this project, is responsible for the design, implementation, and overall development of the game "Myself." This includes gathering requirements, designing system architecture, developing features, conducting testing, and ensuring the game meets the specified requirements and provides an engaging player experience. The developer also incorporates feedback from players and teaching staff to make necessary adjustments and improvements throughout the development process.

3. Functional requirements

The Functional Requirements section outlines the specific features, capabilities, and behaviors that the game "Myself" must exhibit to meet the needs of its players and achieve its intended functionality. These requirements serve as the foundation for the development and implementation of the game's core functionalities, ensuring it effectively supports narrative exploration, interaction with objects, collection and usage of mementos, engagement in minigames, and a seamless and immersive gameplay experience.

3.1. Level Management

3.1.1. Description

Level Management handles the initialization, updating, and rendering of game levels, ensuring that the correct elements are active and visible based on the current age group and game state.

3.1.2. Features

ID	Description	MoSCoW
F01	Initialize levels with name and initial age group	Must have
F02	Update visibility of objects based on current age group	Must have
F03	Change current age group	Must have
F04	Track active and visible objects in the level	Should have

3.1.3. User Stories

ID	Description
US01	As a player, I want to see only the objects relevant to the current age group in the level so that I can focus on the gameplay.
US02	As a player, I want the level to change when I change the age group so that I can see different aspects of the scene.
US03	As a developer, I want to initialize levels with specific parameters so that I can control the game environment.

3.1.4. Business Rules

ID	Description
BR01	Each level must have a unique name.
BR02	A level must always have a defined initial age group.
BR03	Objects must update their visibility based on the current age group and global events.

3.1.5. User Roles

ID	Description
UR01	Player: Interacts with the levels by exploring and changing age groups.
UR02	Developer: Sets up and configures levels, ensuring they function correctly within the game.

3.1.6. Process Flows

- **Level Initialization Process Flow**

```
        ┌─────────────────┐
        │  Load level data │
        └─────────────────┘
                 │
                 ▼
        ┌──────────────────┐
        │ Set initial age group │
        └──────────────────┘
                 │
                 ▼
  ┌────────────────────────────────────────────┐
  │ Identify and activate objects relevant to initial age group │
  └────────────────────────────────────────────┘
                 │
                 ▼
        ┌──────────────────────┐
        │ Render level to the player │
        └──────────────────────┘
```
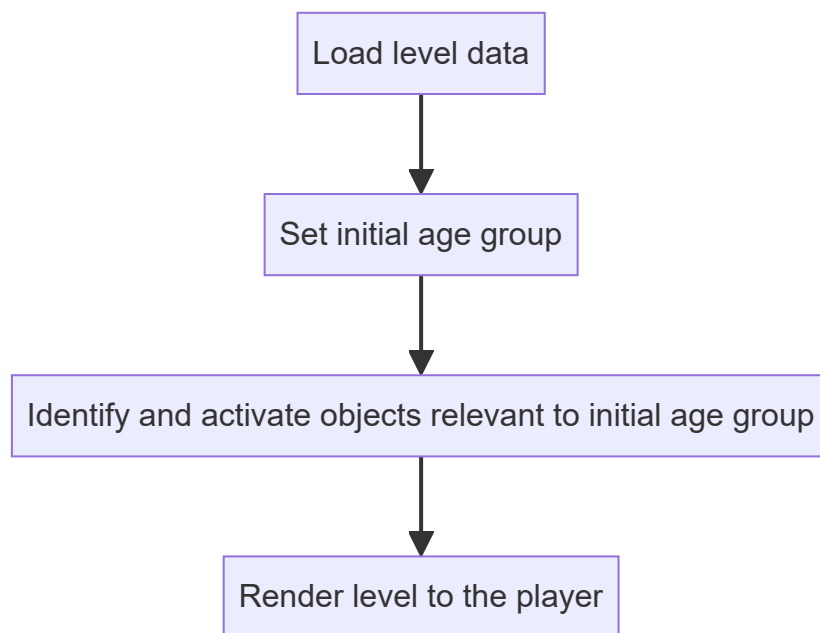
- **Age Group Change Process Flow**

```
                    ┌──────────────────────────────┐
                    │  Player triggers age group   │
                    │           change             │
                    └──────────────────────────────┘
                                   │
                                   ▼
                            ◇ Is new age group valid? ◇
                          Yes │              │ No
                              ▼              ▼
        ┌───────────────────────────┐  ┌───────────────────────┐
        │ Update current age group  │  │ Display error message │
        │      in the level         │  └───────────────────────┘
        └───────────────────────────┘
                      │
                      ▼
    ┌────────────────────────────────────────┐
    │ Recalculate visible objects based on   │
    │            new age group               │
    └────────────────────────────────────────┘
                      │
                      ▼
        ┌───────────────────────────┐
        │   Update the scene display│
        └───────────────────────────┘
```
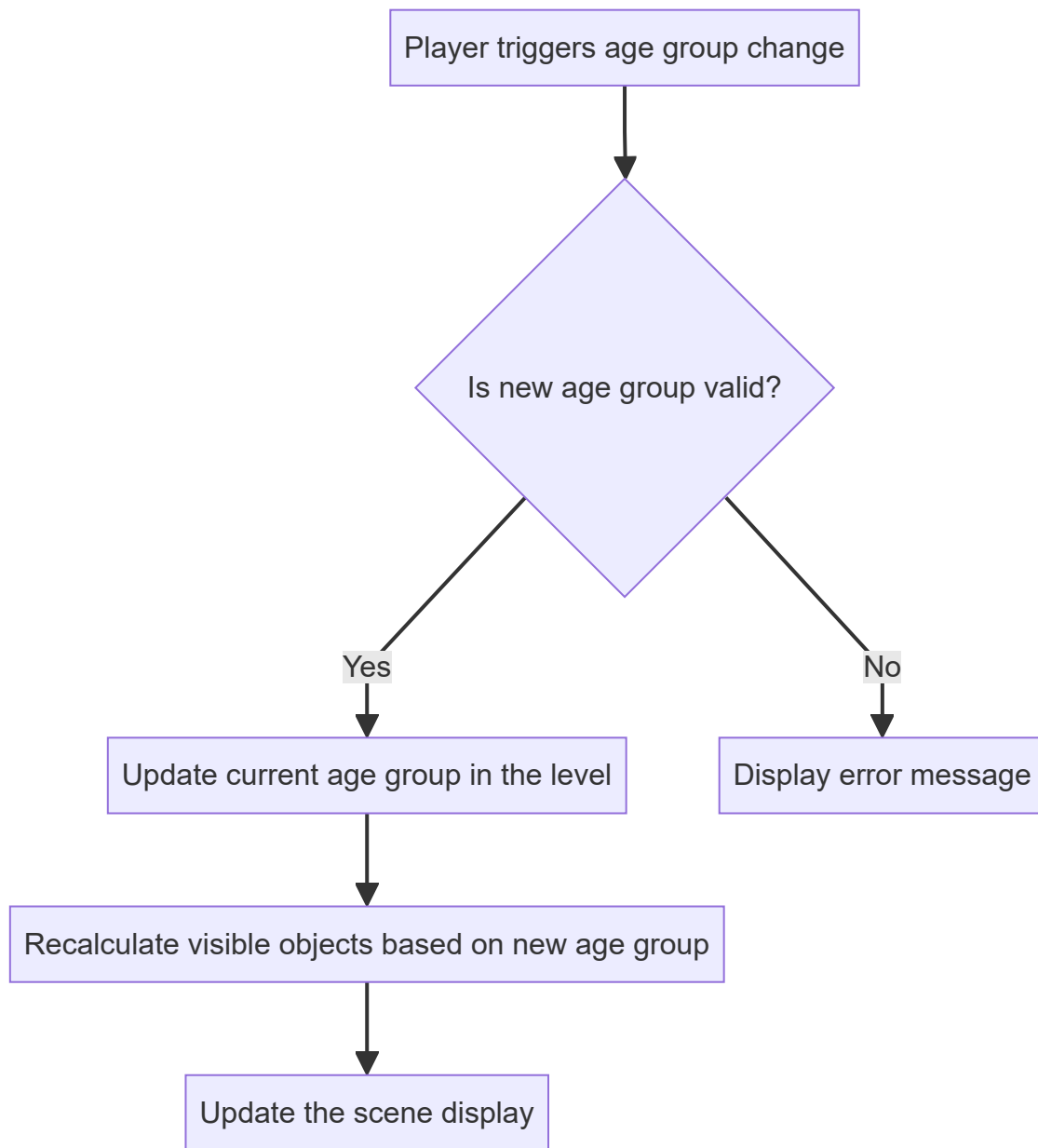
3.1.7. Business Workflow Details

ID	Step Number	Step Detail
BW01	1	Load level data from configuration files or database.
BW02	2	Set the initial age group for the level.
BW03	3	Identify and activate objects relevant to the initial age group.
BW04	4	Display the level to the player.
BW05	5	On age group change, update the current age group.
BW06	6	Recalculate object visibility based on the new age group.
BW07	7	Update the scene to reflect the changes.

3.1.8. Use Cases

- **Use Case: Initialize Level**

Key	Value
Use Case ID	UC01
Description	Initialize the level with a given name and initial age group.
Pre-conditions	Level data must be available.
Post-conditions	Level is initialized and displayed with the correct initial age group.
Normal Flow	1. Load level data. 2. Set the initial age group. 3. Activate objects relevant to the initial age group. 4. Display the level.
Exceptions	If level data is not available, display an error message.
Notes	Ensure all objects are correctly linked to their respective age groups.

- **Use Case: Change Age Group**

Key	Value
Use Case ID	UC02
Description	Change the current age group of the level and update the scene.
Pre-conditions	Level must be initialized.
Post-conditions	The scene reflects the new age group with updated visible objects.
Normal Flow	1. Player selects a new age group. 2. System updates the current age group. 3. System recalculates visible objects based on the new age group. 4. Scene is updated to show the changes.
Exceptions	If the age group is invalid, display an error message.
Notes	Ensure seamless transition between age groups.

3.2. Age Group Management

3.2.1. Description

Age Group Management defines and manages different age groups within the game, allowing objects to change visibility and interaction based on the current age group.

3.2.2. Features

ID	Description	MoSCoW
F05	Define different age groups (e.g., childhood, adolescence, adulthood, old age)	Must have
F06	Assign objects to specific age groups	Must have
F07	Manage transitions between age groups	Should have

3.2.3. User Stories

ID	Description
US04	As a player, I want to experience different age groups within the game so that I can see the progression of the character's life.
US05	As a player, I want the objects in the scene to change according to the age group so that I can interact with relevant elements.
US06	As a developer, I want to assign objects to specific age groups so that I can control their visibility and interaction.

3.2.4. Business Rules

ID	Description
BR04	Age groups must be predefined and consistent across levels.
BR05	Objects must be assigned to one or more age groups.

3.2.5. User Roles

ID	Description
UR03	Player: Interacts with objects based on the current age group.
UR04	Developer: Defines age groups and assigns objects to them.

3.2.6. Process Flows

- **Define Age Groups Process Flow**

```mermaid
flowchart TD
    A[Define age groups] --> B[Assign objects to relevant age groups]
    B --> C[Save age group definitions]
```
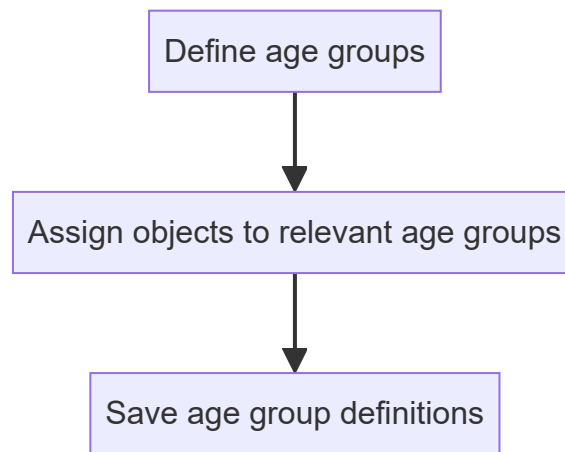
3.2.7. Business Workflow Details

ID	Step Number	Step Detail
BW08	1	Define age groups (e.g., childhood, adolescence, adulthood, old age).
BW09	2	Assign objects to relevant age groups.
BW10	3	Save age group definitions.

3.2.8. Use Cases

- **Use Case: Define Age Groups**

Key	Value
Use Case ID	UC03
Description	Define different age groups for the game.
Pre-conditions	Age group names and details must be available.
Post-conditions	Age groups are defined and saved.
Normal Flow	1. Define age group names and details. 2. Save age group definitions.
Exceptions	If age group definitions are invalid, display an error message.
Notes	Ensure age groups are consistent across levels.

- **Use Case: Assign Objects to Age Groups**

Key	Value
Use Case ID	UC04
Description	Assign objects to specific age groups.
Pre-conditions	Objects and age groups must be defined.

Key	Value
Post-conditions	Objects are assigned to age groups and saved.
Normal Flow	1. Select object. 2. Assign object to one or more age groups. 3. Save object metadata.
Exceptions	If object or age group is invalid, display an error message.
Notes	Ensure objects are correctly linked to age groups.

3.3. Global Events Management

3.3.1. Description

Global Events Management handles the creation, triggering, and management of events that affect the game state across all levels, influencing object visibility and interactions.

3.3.2. Features

ID	Description	MoSCoW
F09	Define global events that affect the game state	Must have
F10	Trigger global events based on specific conditions	Must have
F11	Save and load global event states	Must have

3.3.3. User Stories

ID	Description
US07	As a player, I want certain events to affect the game globally so that the game feels dynamic and interconnected.
US08	As a developer, I want to define and trigger global events to control game state changes.
US09	As a developer, I want to update object visibility based on global events to reflect changes in the game world.

3.3.4. Business Rules

ID	Description
BR07	Global events must be uniquely identifiable.
BR08	Global events must have clearly defined trigger conditions.
BR09	Global events should be reversible or resettable if needed.

3.3.5. User Roles

ID	Description
UR05	Player: Experiences the effects of global events during gameplay.
UR06	Developer: Defines, triggers, and manages global events.

3.3.6. Process Flows

- **Define Global Events Process Flow**

```
Define global event names and conditions
                ↓
      Assign effects to global events
                ↓
       Save global event definitions
```

- **Trigger Global Events Process Flow**

```
Monitor game state for trigger conditions
                ↓
          Are conditions met?
         Yes            No
          ↓              ↓
   Trigger global   Do not trigger
      event            event
          ↓              ↓
   Update game      Continue
   state based on   monitoring
   global event
   effects
```
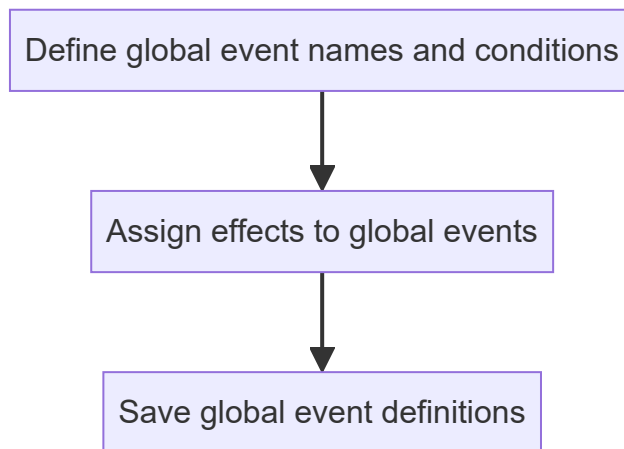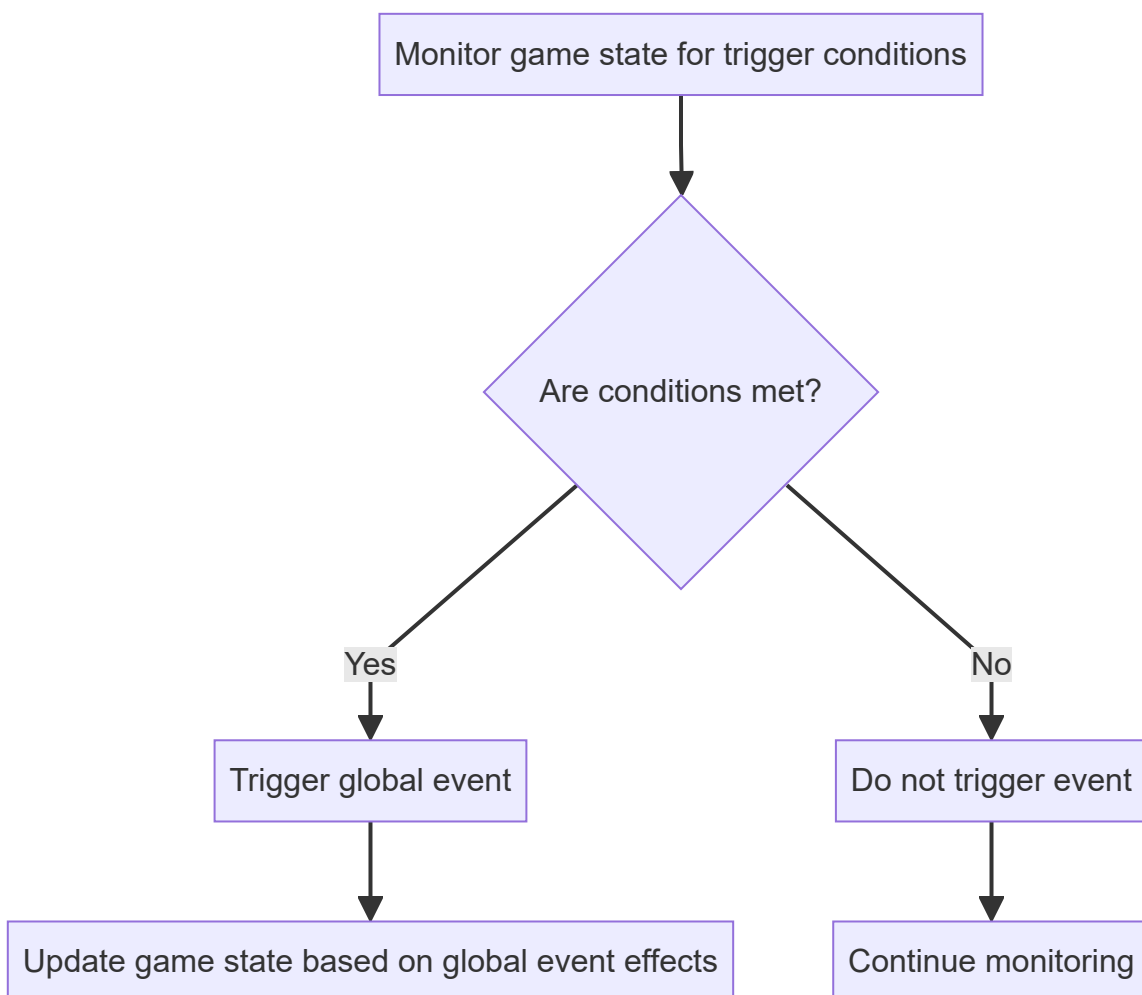
3.3.7. Business Workflow Details

ID	Step Number	Step Detail
BW17	1	Define global event names and conditions.
BW18	2	Assign effects to global events.
BW19	3	Save global event definitions.
BW20	4	Monitor game state for trigger conditions.
BW21	5	Trigger global event when conditions are met.
BW22	6	Update game state based on global event effects.

3.3.8. Use Cases

- **Use Case: Define Global Events**

Key	Value
Use Case ID	UC06
Description	Define global events that affect the game state.
Pre-conditions	Event names and conditions must be available.
Post-conditions	Global events are defined and saved.
Normal Flow	1. Define global event names and conditions. 2. Assign effects to global events. 3. Save global event definitions.
Exceptions	If event definitions are invalid, display an error message.
Notes	Ensure global events are consistent across levels.

- **Use Case: Trigger Global Events**

Key	Value
Use Case ID	UC07
Description	Trigger global events based on specific conditions.
Pre-conditions	Game state must be monitored.
Post-conditions	Global events are triggered, and the game state is updated.
Normal Flow	1. Monitor game state for trigger conditions. 2. Trigger global event when conditions are met. 3. Update game state based on global event effects.
Exceptions	If conditions are not met, global events are not triggered.
Notes	Ensure global events have clear and achievable trigger conditions.

3.4. Object Visibility Management

3.4.1. Description

Object Visibility Management controls the conditions under which objects in the game become visible or invisible, ensuring dynamic interactions based on age groups and global events.

3.4.2. Features

ID	Description	MoSCoW
F13	Define visibility conditions for objects	Must have
F14	Update object visibility based on current age group and global events	Must have
F15	Implement visibility transitions (e.g., fade in, fade out)	Should have

3.4.3. User Stories

ID	Description
US10	As a player, I want objects to appear and disappear smoothly based on the game state so that the game feels dynamic.
US11	As a developer, I want to define visibility conditions for objects to control their appearance based on the game state.
US12	As a player, I want the game to reflect changes in global events and age groups through object visibility.

3.4.4. Business Rules

ID	Description
BR10	Objects must have clearly defined visibility conditions.
BR11	Visibility transitions should be smooth and not disrupt gameplay.
BR12	Visibility updates must be triggered by changes in age group or global events.

3.4.5. User Roles

ID	Description
UR07	Player: Experiences changes in object visibility during gameplay.
UR08	Developer: Defines visibility conditions and implements visibility updates.

3.4.6. Process Flows

- **Define Visibility Conditions Process Flow**

```
            ┌─────────────────────┐
            │   Identify object   │
            └─────────────────────┘
                       │
                       ▼
┌───────────────────────────────────────────────────┐
│ Define visibility conditions based on age group     │
│ and global events                                   │
└───────────────────────────────────────────────────┘
                       │
                       ▼
            ┌─────────────────────────┐
            │ Save visibility conditions │
            └─────────────────────────┘
```

- **Update Object Visibility Process Flow**

```mermaid
flowchart TD
    A[Identify current age group and global events] --> B[Check object visibility conditions]
    B --> C{Should object be visible?}
    C -->|Yes| D{Is object currently visible?}
    C -->|No| E{Is object currently visible?}
    D -->|Yes| F[Do nothing]
    D -->|No| G[Fade in]
    E -->|Yes| H[Fade out]
    E -->|No| I[Do nothing]
```
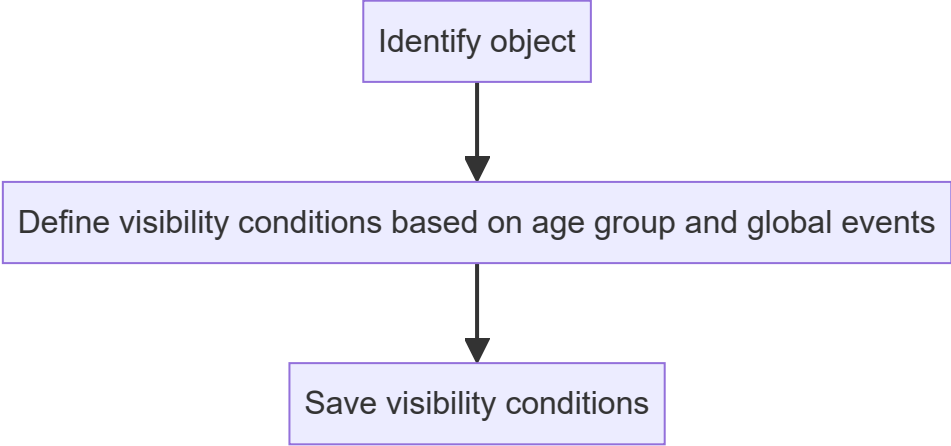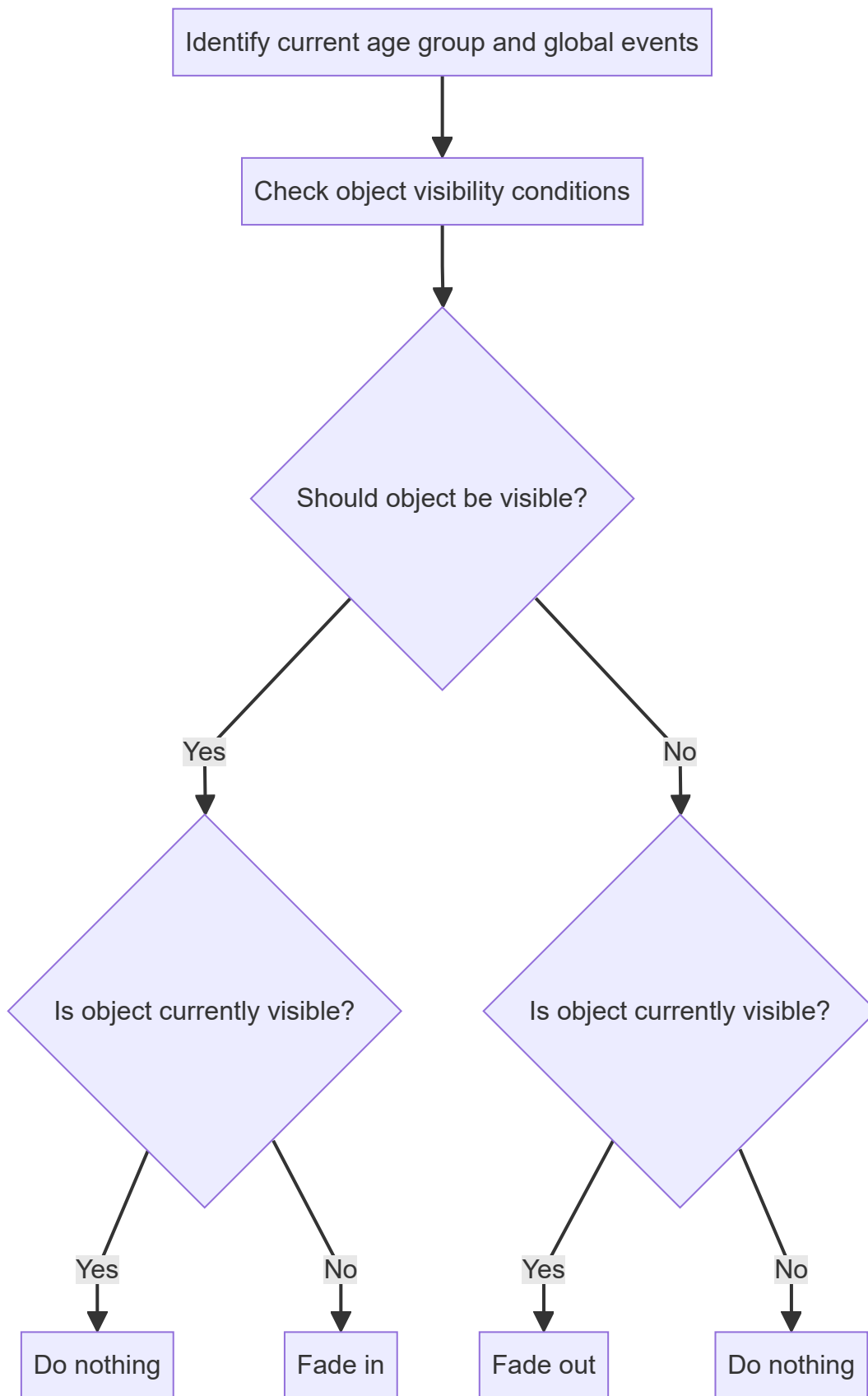
3.4.7. Business Workflow Details

ID	Step Number	Step Detail
BW26	1	Identify object.

ID	Step Number	Step Detail
BW27	2	Define visibility conditions based on age group and global events.
BW28	3	Save visibility conditions.
BW29	4	Identify current age group and global events.
BW30	5	Check object visibility conditions.
BW31	6	Determine visibility state (visible or not).
BW32	7	Implement visibility transition if needed.

3.4.8. Use Cases

- **Use Case: Define Visibility Conditions**

Key	Value
Use Case ID	UC09
Description	Define visibility conditions for objects based on age group and global events.
Pre-conditions	Object must be identified.
Post-conditions	Visibility conditions are defined and saved.
Normal Flow	1. Identify object. 2. Define visibility conditions based on age group and global events. 3. Save visibility conditions.
Exceptions	If conditions are invalid, display an error message.
Notes	Ensure visibility conditions are comprehensive and cover all necessary scenarios.

- **Use Case: Update Object Visibility**

Key	Value
Use Case ID	UC10
Description	Update object visibility based on current age group and global events.
Pre-conditions	Current age group and global events must be identified.
Post-conditions	Object visibility is updated with smooth transitions.

Key	Value
Normal Flow	1. Identify current age group and global events. 2. Check object visibility conditions. 3. Determine visibility state (visible or not). 4. Implement visibility transition if needed.
Exceptions	If visibility conditions are not met, maintain current visibility state.
Notes	Ensure transitions are smooth and do not disrupt gameplay.

3.5. Game State Persistence

3.5.1. Description

Game State Persistence ensures that the player's progress and game state are securely saved and loaded, maintaining data integrity and providing a seamless gameplay experience.

3.5.2. Features

ID	Description	MoSCoW
F16	Save the current game state	Must have
F17	Load a previously saved game state	Must have
F18	Handle game state data securely	Must have
F19	Ensure data integrity during save and load operations	Should have

3.5.3. User Stories

ID	Description
US13	As a player, I want to save my game progress so that I can continue from where I left off.
US14	As a player, I want to load my saved game progress so that I can resume my gameplay.
US15	As a developer, I want to ensure the game state is saved and loaded securely to prevent data corruption.

3.5.4. Business Rules

ID	Description
BR13	Game state must be saved to a reliable and secure location.
BR14	Game state data must be encrypted to ensure security.
BR15	Integrity checks must be performed during save and load operations to ensure data consistency.

3.5.5. User Roles

ID	Description
UR09	Player: Saves and loads game progress.
UR10	Developer: Implements save and load functionality, ensuring security and integrity.

3.5.6. Process Flows

- **Save Game State Process Flow**

```
Capture current game state data
            │
            ▼
Perform data integrity check
            │
            ▼
Encrypt game state data
            │
            ▼
Save encrypted data to storage
```

- **Load Game State Process Flow**

```
Retrieve saved game state data from storage
            │
            ▼
Decrypt game state data
            │
            ▼
Perform data integrity check
            │
            ▼
Load game state into the game
```
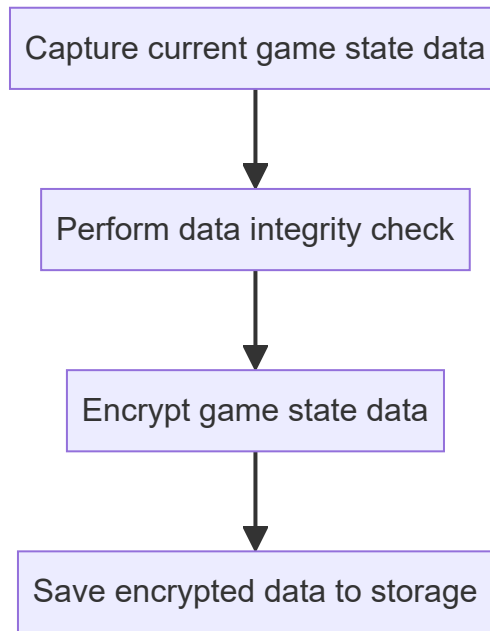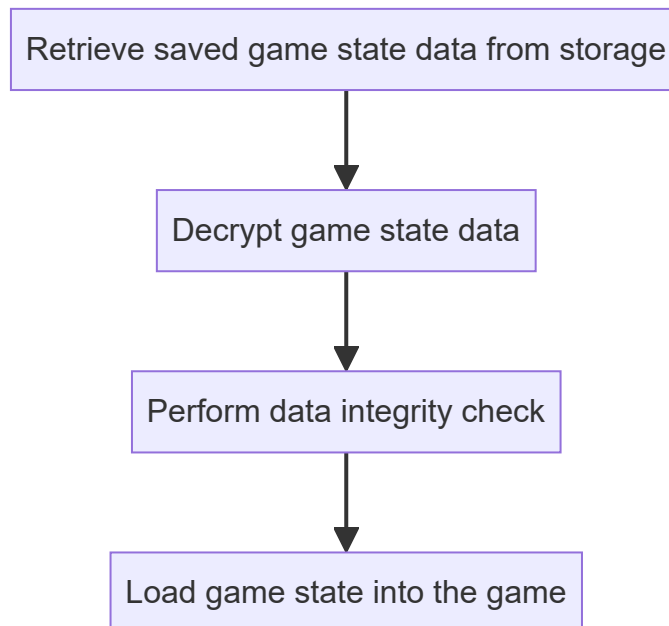
3.5.7. Business Workflow Details

ID	Step Number	Step Detail
BW33	1	Capture current game state data.
BW34	2	Perform data integrity check.
BW35	3	Encrypt game state data.
BW36	4	Save encrypted data to storage.
BW37	5	Retrieve saved game state data from storage.
BW38	6	Decrypt game state data.
BW39	7	Perform data integrity check.
BW40	8	Load game state into the game.

3.5.8. Use Cases

- **Use Case: Save Game State**

Key	Value
Use Case ID	UC11
Description	Save the current game state to storage.
Pre-conditions	Game state data must be captured and valid.
Post-conditions	Game state is saved securely and data integrity is ensured.
Normal Flow	1. Capture current game state data. 2. Perform data integrity check. 3. Encrypt game state data. 4. Save encrypted data to storage.
Exceptions	If data integrity check fails, display an error message.
Notes	Ensure the save operation does not disrupt gameplay.

- **Use Case: Load Game State**

Key	Value
Use Case ID	UC12
Description	Load a previously saved game state from storage.
Pre-conditions	Saved game state data must be available and valid.
Post-conditions	Game state is loaded, and data integrity is ensured.

Key	Value
Normal Flow	1. Retrieve saved game state data from storage. 2. Decrypt game state data. 3. Perform data integrity check. 4. Load game state into the game.
Exceptions	If data integrity check fails, display an error message.
Notes	Ensure the load operation does not disrupt gameplay.

3.6. Scene Exploration

3.6.1. Description

Scene Exploration allows players to navigate and interact within game scenes, discovering mementos and progressing through the story by interacting with objects.

3.6.2. Features

ID	Description	MoSCoW
F20	Allow players to navigate and explore scenes	Must have
F21	Enable interaction with objects in the scene	Must have
F22	Display information about interactive objects	Should have
F23	Provide visual and audio feedback for interactions	Should have

3.6.3. User Stories

ID	Description
US16	As a player, I want to navigate through different scenes so that I can explore the game world.
US17	As a player, I want to interact with objects in the scene to uncover clues and progress in the game.
US18	As a player, I want to receive visual and audio feedback when I interact with objects to know my actions have an effect.

3.6.4. Business Rules

ID	Description
BR16	Scenes must be designed to guide player exploration naturally.
BR17	Interactive objects must be clearly distinguishable.
BR18	Feedback for interactions should be immediate and clear.

3.6.5. User Roles

ID	Description
UR11	Player: Navigates and explores scenes, interacting with objects.
UR12	Developer: Designs scenes and implements interaction mechanics.

3.6.6. Process Flows

- **Navigate Scene Process Flow**

```
Load scene
    ↓
Allow player to move within the scene
    ↓
Update player position and view
```
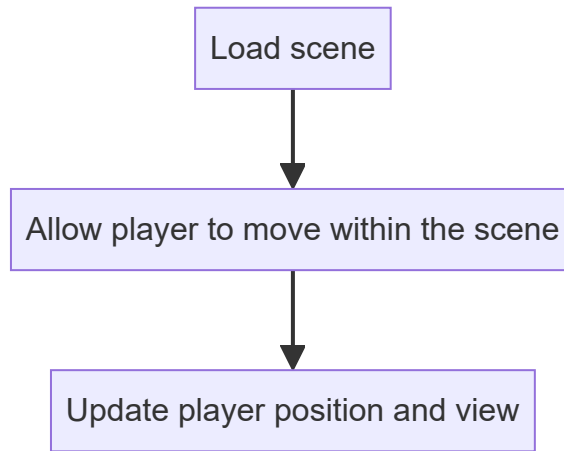
- **Interact with Object Process Flow**

```
Detect player input
    ↓
Identify interactive object
    ↓
Display information or trigger action
    ↓
Provide feedback
```
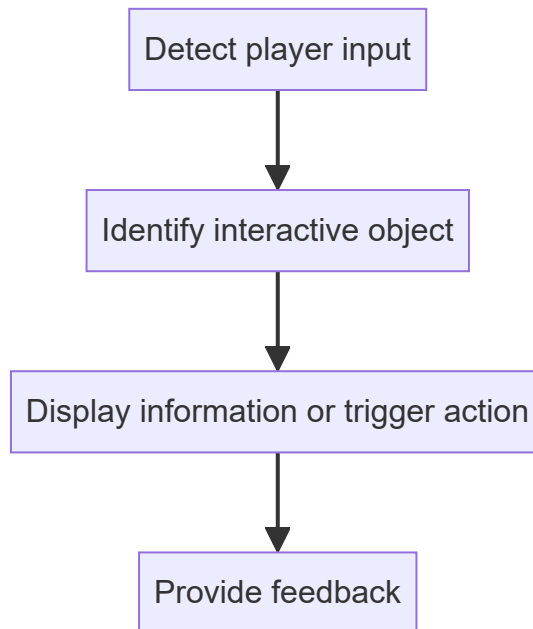
3.6.7. Business Workflow Details

ID	Step Number	Step Detail
BW41	1	Load scene.
BW42	2	Allow player to move within the scene.
BW43	3	Update player position and view.

ID	Step Number	Step Detail
BW44	4	Detect player input.
BW45	5	Identify interactive object.
BW46	6	Display information or trigger action.
BW47	7	Provide feedback (visual/audio).

3.6.8. Use Cases

- **Use Case: Navigate Scene**

Key	Value
Use Case ID	UC13
Description	Allow the player to navigate through different scenes.
Pre-conditions	Scene must be loaded and ready.
Post-conditions	Player can move and explore the scene.
Normal Flow	1. Load scene. 2. Allow player to move within the scene. 3. Update player position and view.
Exceptions	If scene fails to load, display an error message.
Notes	Ensure smooth transitions between player movements.

- **Use Case: Interact with Object**

Key	Value
Use Case ID	UC14
Description	Enable the player to interact with objects in the scene.
Pre-conditions	Interactive objects must be present in the scene.
Post-conditions	Object interaction is processed, and feedback is provided.
Normal Flow	1. Detect player input. 2. Identify interactive object. 3. Display information or trigger action. 4. Provide feedback (visual/audio).
Exceptions	If object interaction fails, display an error message.
Notes	Ensure feedback is clear and immediate.

3.7. Memento Collection and Usage

3.7.1. Description

Memento Collection and Usage enables players to collect and use mementos within the game, unlocking new content and interactions based on these collected items.

3.7.2. Features

ID	Description	MoSCoW
F24	Allow players to collect mementos from scenes	Must have
F25	Enable players to use collected mementos to interact with objects or scenes	Must have
F26	Provide a memento inventory system	Must have
F27	Display information about collected mementos	Should have

3.7.3. User Stories

ID	Description
US19	As a player, I want to collect mementos from scenes to help me progress in the game.
US20	As a player, I want to use collected mementos to interact with objects or scenes and unlock new content.
US21	As a player, I want to view my collected mementos in an inventory to keep track of them.

3.7.4. Business Rules

ID	Description
BR19	Mementos must be collectible items within scenes.
BR20	Mementos must be usable in relevant contexts to trigger interactions or events.
BR21	The memento inventory must be easily accessible to players.

3.7.5. User Roles

ID	Description
UR13	Player: Collects and uses mementos to progress in the game.
UR14	Developer: Implements memento collection and usage mechanics.

3.7.6. Process Flows

- **Collect Memento Process Flow**

```
┌─────────────────────────┐
│  Detect memento in scene │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────────┐
│ Allow player to collect memento │
└─────────────────────────────┘
             │
             ▼
┌──────────────────────────┐
│  Add memento to inventory │
└──────────────────────────┘
```

- **Use Memento Process Flow**

```
┌──────────────────────────────┐
│  Select memento from inventory │
└──────────────────────────────┘
             │
             ▼
┌──────────────────────────────┐
│  Identify target object or scene │
└──────────────────────────────┘
             │
             ▼
┌──────────────────────────┐
│   Use memento on target   │
└──────────────────────────┘
             │
             ▼
┌──────────────────────────┐
│ Trigger interaction or event │
└──────────────────────────┘
```
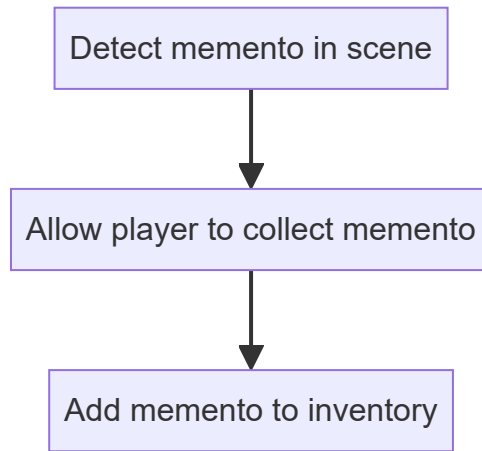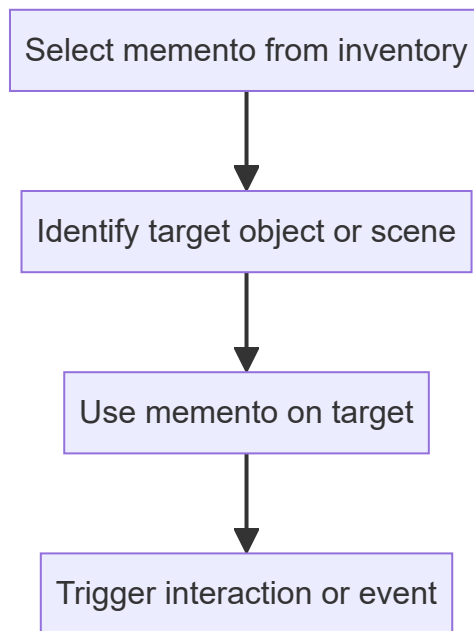
3.7.7. Business Workflow Details

ID	Step Number	Step Detail
BW48	1	Detect memento in scene.
BW49	2	Allow player to collect memento.
BW50	3	Add memento to inventory.
BW51	4	Select memento from inventory.
BW52	5	Identify target object or scene.
BW53	6	Use memento on target.
BW54	7	Trigger interaction or event.

3.7.8. Use Cases

- **Use Case: Collect Memento**

Key	Value
Use Case ID	UC15
Description	Allow the player to collect mementos from scenes.
Pre-conditions	Memento must be present and detectable in the scene.
Post-conditions	Memento is collected and added to the inventory.
Normal Flow	1. Detect memento in scene. 2. Allow player to collect memento. 3. Add memento to inventory.
Exceptions	If memento cannot be collected, display an error message.
Notes	Ensure mementos are distinguishable and collectible.

- **Use Case: Use Memento**

Key	Value
Use Case ID	UC16
Description	Enable the player to use collected mementos to interact with objects or scenes.
Pre-conditions	Mementos must be collected and present in the inventory.
Post-conditions	Memento is used, and the corresponding interaction or event is triggered.
Normal Flow	1. Select memento from inventory. 2. Identify target object or scene. 3. Use memento on target. 4. Trigger interaction or event.
Exceptions	If memento cannot be used, display an error message.
Notes	Ensure interactions or events are contextually relevant and clear.

3.8. Minigames

3.8.1. Description

Minigames integrate smaller, interactive games within the main game, providing variety and rewards that contribute to the player's progress and the overall narrative.

3.8.2. Features

ID	Description	MoSCoW
F31	Integrate minigames within the main game	Must have
F32	Trigger minigames based on specific game conditions	Must have
F33	Provide feedback and rewards for completing minigames	Should have
F34	Ensure minigames are contextually relevant to the main story	Should have

3.8.3. User Stories

ID	Description
US25	As a player, I want to play minigames to unlock new scenes or progress in the main game.
US26	As a player, I want minigames to be contextually relevant to the main story to enhance my immersion.
US27	As a developer, I want to integrate minigames seamlessly into the main game to provide variety and engagement.

3.8.4. Business Rules

ID	Description
BR25	Minigames must be designed to fit within the overall game narrative.
BR26	Successful completion of minigames should provide rewards or unlock new content.
BR27	Minigames must be accessible and provide clear instructions to players.

3.8.5. User Roles

ID	Description
UR17	Player: Engages with and completes minigames to progress in the game.
UR18	Developer: Designs and integrates minigames into the main game.

3.8.6. Process Flows

- **Trigger Minigame Process Flow**

```
┌─────────────────────────┐
│ Identify trigger condition │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│   Load and start minigame │
└─────────────────────────┘
             │
             ▼
┌─────────────────────────┐
│ Provide instructions to player │
└─────────────────────────┘
```
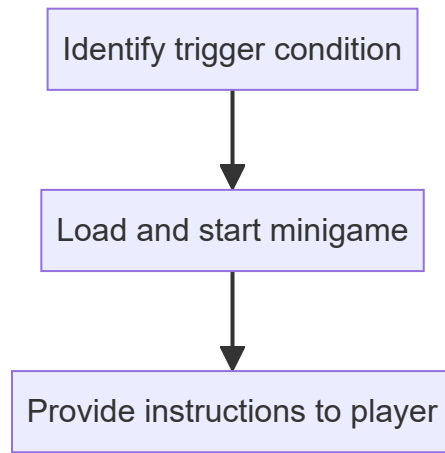
- **Complete Minigame Process Flow**

```
        ┌─────────────────────────┐
        │  Monitor player progress │
        └─────────────────────────┘
                     │
                     ▼
        ┌─────────────────────────┐
        │ Determine completion status │
        └─────────────────────────┘
                     │
                     ▼
                  ◇◇◇◇◇
              ◇◇         ◇◇
           ◇◇   Is minigame   ◇◇
           ◇◇    completed?    ◇◇
              ◇◇         ◇◇
                  ◇◇◇◇◇
            Yes            No
             │              │
             ▼              ▼
┌───────────────────────┐  ┌─────────────────────┐
│ Provide feedback and  │  │ Continue monitoring │
│      rewards          │  └─────────────────────┘
└───────────────────────┘
             │
             ▼
┌───────────────────────┐
│ Transition back to main game │
└───────────────────────┘
```
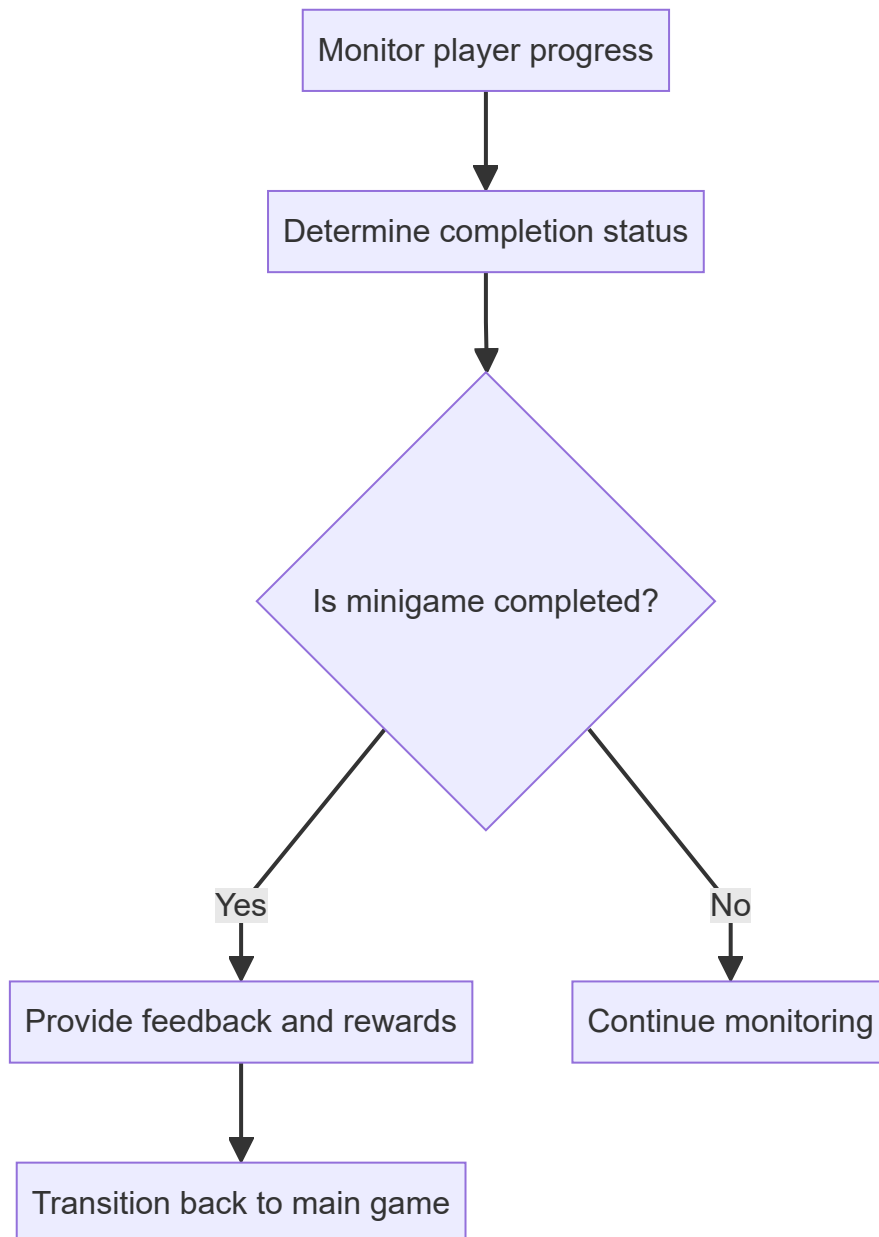
3.8.7. Business Workflow Details

ID	Step Number	Step Detail
BW55	1	Identify trigger condition for minigame.
BW56	2	Load and start minigame.
BW57	3	Provide instructions to player.
BW58	4	Monitor player progress.
BW59	5	Determine completion status.
BW60	6	Provide feedback and rewards.
BW61	7	Transition back to main game.

3.8.8. Use Cases

- **Use Case: Trigger Minigame**

Key	Value
Use Case ID	UC17
Description	Trigger a minigame based on specific game conditions.
Pre-conditions	Trigger conditions must be met.
Post-conditions	Minigame is loaded and started.
Normal Flow	1. Identify trigger condition. 2. Load and start minigame. 3. Provide instructions to player.
Exceptions	If minigame fails to load, display an error message.
Notes	Ensure seamless transition into the minigame.

- **Use Case: Complete Minigame**

Key	Value
Use Case ID	UC18
Description	Complete a minigame and return to the main game.
Pre-conditions	Minigame must be started.
Post-conditions	Player receives feedback and rewards, and returns to the main game.
Normal Flow	1. Monitor player progress. 2. Determine completion status. 3. Provide feedback and rewards. 4. Transition back to main game.

Key	Value
Exceptions	If completion status cannot be determined, display an error message.
Notes	Ensure the player understands the outcome and reward.

3.9. Main Menu

3.9.1. Description

The Main Menu provides the initial interface for players to start a new game, continue a saved game, adjust settings, view credits, or exit the game.

3.9.2. Features

ID	Description	MoSCoW
F35	Provide option to continue the last game	Must have
F36	Provide option to start a new game	Must have
F37	Provide option to access settings	Should have
F38	Provide option to view credits	Should have
F39	Provide option to exit the game	Must have

3.9.3. User Stories

ID	Description
US28	As a player, I want to continue my last game from the main menu so that I can resume my progress.
US29	As a player, I want to start a new game from the main menu so that I can begin playing from the start.
US30	As a player, I want to access game settings from the main menu so that I can adjust options.
US31	As a player, I want to view the game credits from the main menu so that I can see the creators and contributors.
US32	As a player, I want to exit the game from the main menu so that I can quit the game.

3.9.4. Business Rules

ID	Description
BR28	The main menu must be accessible when the game starts.
BR29	Options in the main menu must be clearly labeled and easy to navigate.
BR30	The "Continue" option should be disabled if there is no saved game.

3.9.5. User Roles

ID	Description
UR19	Player: Uses the main menu to continue, start, adjust settings, view credits, and exit the game.
UR20	Developer: Implements and ensures functionality of the main menu.

3.9.6. Process Flows

- **Continue Game Process Flow**

Select Continue from the main menu

↓

Load the most recent saved game state

↓

Transition to the last game scene
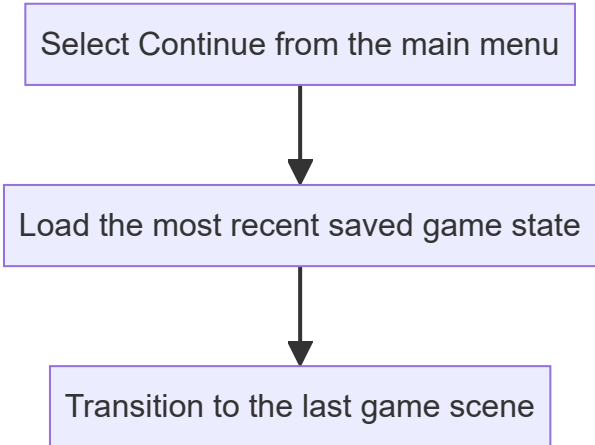
- **Start New Game Process Flow**

Select New Game from the main menu

↓

Initialize a new game state

↓

Transition to the first game scene
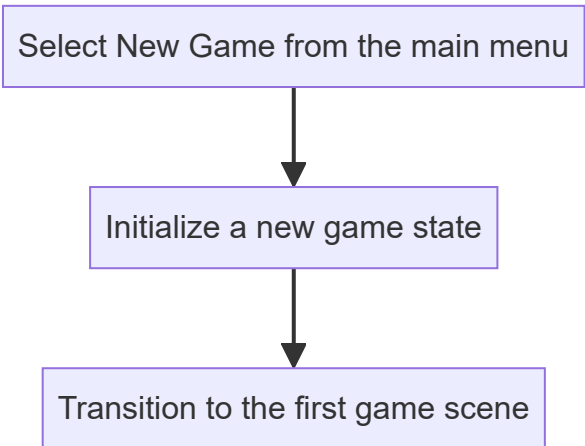
- **Access Settings Process Flow**

```
┌─────────────────────────────────────┐
│   Select Options from the main menu  │
└─────────────────────────────────────┘
                   │
                   ▼
      ┌───────────────────────────┐
      │  Display the settings menu │
      └───────────────────────────┘
                   │
                   ▼
      ┌───────────────────────────┐
      │  Allow player to adjust settings │
      └───────────────────────────┘
```
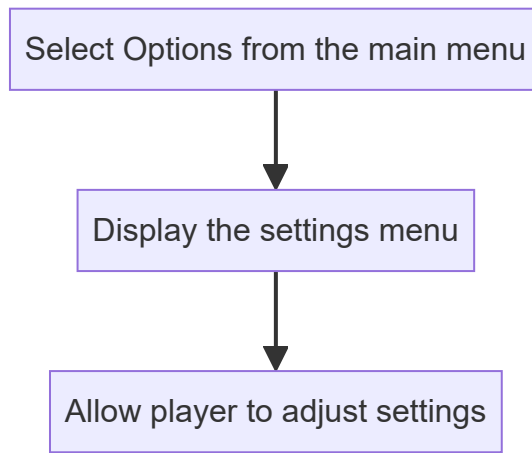
- **View Credits Process Flow**

```
      ┌───────────────────────────┐
      │ Select Credits from the main menu │
      └───────────────────────────┘
                   │
                   ▼
      ┌───────────────────────────┐
      │  Display the credits screen │
      └───────────────────────────┘
```

- **Exit Game Process Flow**

```
   ┌───────────────────────────────────┐
   │ Select Exit Game from the main menu │
   └───────────────────────────────────┘
                   │
                   ▼
           ┌───────────────┐
           │  Confirm exit  │
           └───────────────┘
                   │
                   ▼
          ┌────────────────┐
          │ Close the game  │
          └────────────────┘
```
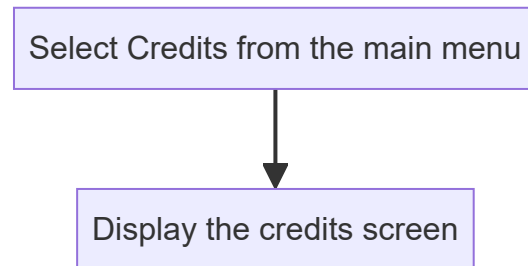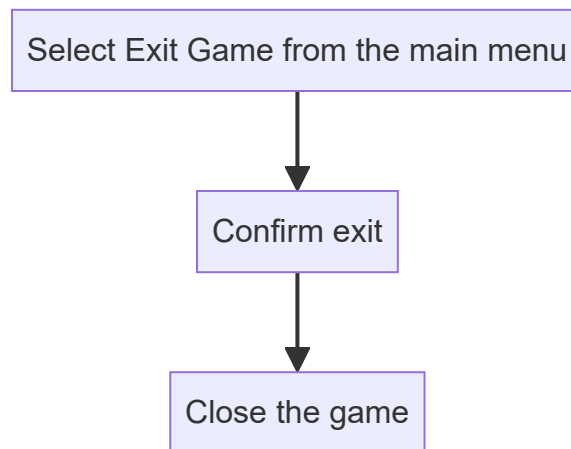
3.9.7. Business Workflow Details

ID	Step Number	Step Detail
BW55	1	Select "Continue" from the main menu.
BW56	2	Load the most recent saved game state.
BW57	3	Transition to the last game scene.
BW58	4	Select "New Game" from the main menu.
BW59	5	Initialize a new game state.
BW60	6	Transition to the first game scene.

ID	Step Number	Step Detail
BW61	7	Select "Options" from the main menu.
BW62	8	Display the settings menu.
BW63	9	Allow player to adjust settings.
BW64	10	Select "Credits" from the main menu.
BW65	11	Display the credits screen.
BW66	12	Select "Exit Game" from the main menu.
BW67	13	Confirm exit.
BW68	14	Close the game.

3.9.8. Use Cases

- **Use Case: Continue Game**

Key	Value
Use Case ID	UC19
Description	Allow the player to continue the last game from the main menu.
Pre-conditions	A saved game state must be available.
Post-conditions	Player resumes from the last saved game state.
Normal Flow	1. Select "Continue" from the main menu. 2. Load the most recent saved game state. 3. Transition to the last game scene.
Exceptions	If no saved game state is available, display an error message.
Notes	Ensure the "Continue" option is disabled if there is no saved game.

- **Use Case: Start New Game**

Key	Value
Use Case ID	UC20
Description	Allow the player to start a new game from the main menu.
Pre-conditions	None.
Post-conditions	A new game state is initialized and started.
Normal Flow	1. Select "New Game" from the main menu. 2. Initialize a new game state. 3. Transition to the first game scene.
Exceptions	If game initialization fails, display an error message.

Key	Value
Notes	Ensure a new game state does not overwrite existing saved games.

- **Use Case: Access Settings**

Key	Value
Use Case ID	UC21
Description	Allow the player to access game settings from the main menu.
Pre-conditions	None.
Post-conditions	Player can adjust game settings.
Normal Flow	1. Select "Options" from the main menu. 2. Display the settings menu. 3. Allow player to adjust settings.
Exceptions	If settings menu fails to load, display an error message.
Notes	Ensure settings changes are saved and applied correctly.

- **Use Case: View Credits**

Key	Value
Use Case ID	UC22
Description	Allow the player to view the game credits from the main menu.
Pre-conditions	None.
Post-conditions	Player views the credits screen.
Normal Flow	1. Select "Credits" from the main menu. 2. Display the credits screen.
Exceptions	If credits screen fails to load, display an error message.
Notes	Ensure credits are comprehensive and correctly displayed.

- **Use Case: Exit Game**

Key	Value
Use Case ID	UC23
Description	Allow the player to exit the game from the main menu.
Pre-conditions	None.
Post-conditions	Game is closed.

Key	Value
Normal Flow	1. Select "Exit Game" from the main menu. 2. Confirm exit. 3. Close the game.
Exceptions	If game fails to close, display an error message.
Notes	Ensure any unsaved progress is properly handled.

3.10. Pause Menu

3.10.1. Description

The Pause Menu offers in-game options for players to resume gameplay, return to the main menu, or exit the game, ensuring they can manage their game session effectively.

3.10.2. Features

ID	Description	MoSCoW
F40	Provide option to resume the game	Must have
F41	Provide option to return to the main menu	Must have
F42	Provide option to exit the game	Must have

3.10.3. User Stories

ID	Description
US33	As a player, I want to resume the game from the pause menu so that I can continue playing.
US34	As a player, I want to return to the main menu from the pause menu so that I can access other game options.
US35	As a player, I want to exit the game from the pause menu so that I can quit the game.

3.10.4. Business Rules

ID	Description
BR31	The pause menu must be accessible during gameplay.
BR32	Options in the pause menu must be clearly labeled and easy to navigate.

3.10.5. User Roles

ID	Description
UR21	Player: Uses the pause menu to resume, return to main menu, or exit the game.

ID	Description
UR22	Developer: Implements and ensures functionality of the pause menu.

3.10.6. Process Flows

- **Resume Game Process Flow**

```
Select Resume from the pause menu
                |
                v
       Close the pause menu
                |
                v
        Resume gameplay
```
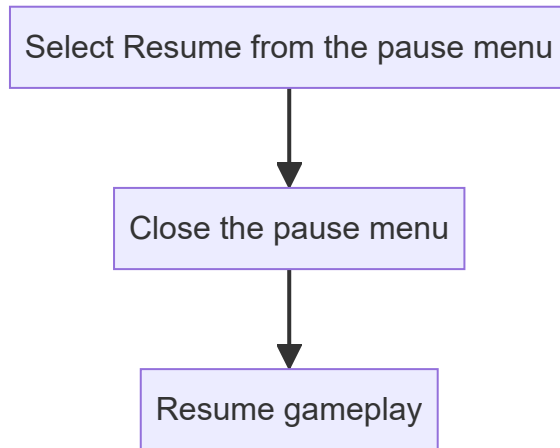
- **Return to Main Menu Process Flow**

```
Select Main Menu from the pause menu
                |
                v
      Confirm return to main menu
                |
                v
     Transition to the main menu
```

- **Exit Game Process Flow**

```
Select Exit Game from the pause menu
                |
                v
           Confirm exit
                |
                v
         Close the game
```
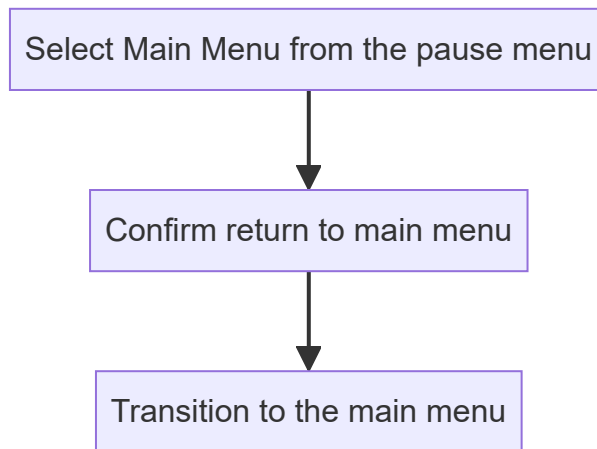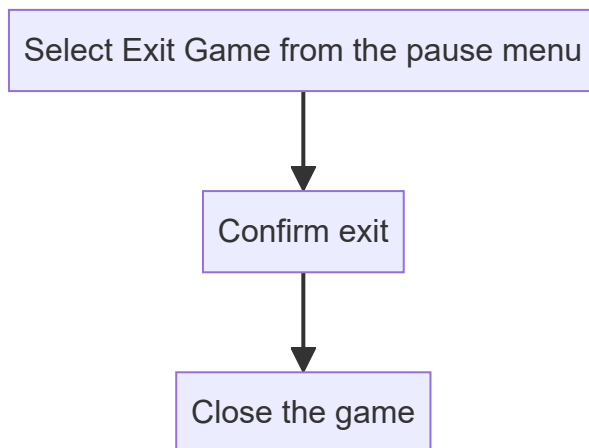
3.10.7. Business Workflow Details

ID	Step Number	Step Detail
BW69	1	Select "Resume" from the pause menu.
BW70	2	Close the pause menu.
BW71	3	Resume gameplay.
BW72	4	Select "Main Menu" from the pause menu.
BW73	5	Confirm return to main menu.
BW74	6	Transition to the main menu.
BW75	7	Select "Exit Game" from the pause menu.
BW76	8	Confirm exit.
BW77	9	Close the game.

3.10.8. Use Cases

- **Use Case: Resume Game**

Key	Value
Use Case ID	UC24
Description	Allow the player to resume the game from the pause menu.
Pre-conditions	The game must be paused.
Post-conditions	The game resumes from where it was paused.
Normal Flow	1. Select "Resume" from the pause menu. 2. Close the pause menu. 3. Resume gameplay.
Exceptions	If game fails to resume, display an error message.
Notes	Ensure the transition back to gameplay is smooth.

- **Use Case: Return to Main Menu**

Key	Value
Use Case ID	UC25
Description	Allow the player to return to the main menu from the pause menu.
Pre-conditions	The game must be paused.
Post-conditions	The game transitions to the main menu.

Key	Value
Normal Flow	1. Select "Main Menu" from the pause menu. 2. Confirm return to main menu. 3. Transition to the main menu.
Exceptions	If main menu fails to load, display an error message.
Notes	Ensure any unsaved progress is properly handled.

- **Use Case: Exit Game**

Key	Value
Use Case ID	UC26
Description	Allow the player to exit the game from the pause menu.
Pre-conditions	The game must be paused.
Post-conditions	The game is closed.
Normal Flow	1. Select "Exit Game" from the pause menu. 2. Confirm exit. 3. Close the game.
Exceptions	If game fails to close, display an error message.
Notes	Ensure any unsaved progress is properly handled.

4. UX Requirements

The UX requirements ensure that the game "Myself" offers an intuitive, visually appealing, and accessible user experience for seamless navigation and interaction. These requirements aim to enhance player engagement and satisfaction by providing a cohesive and immersive gaming experience.

- **Intuitive and User-Friendly Interface:** The game must have an easy-to-navigate interface, allowing players to effortlessly explore scenes, interact with objects, and access menus.
- **Responsive Design:** Ensure a seamless user experience across different devices and screen sizes, maintaining functionality and visual appeal on all supported platforms.
- **Consistent Visual Design:** Use a clear and consistent visual design, including a cohesive color scheme, typography, and graphical elements to create a unified look and feel throughout the game.
- **Accessibility Features:** Incorporate accessibility features to cater to players with disabilities, adhering to relevant accessibility standards (e.g., WCAG). This may include options for adjusting text size, enabling subtitles, and providing alternative input methods.
- **Personalization Options:** Allow players to customize their gameplay experience, including adjusting settings for audio, graphics, controls, and other preferences.
- **Clear Instructions and Tooltips:** Provide clear and concise instructions or tooltips to guide players in understanding and utilizing the game's features, mechanics, and controls effectively.

- **Multilingual Support:** Offer support for multiple languages to accommodate players from diverse linguistic backgrounds, ensuring that text and dialogue are accurately translated and culturally appropriate.

- **Feedback Mechanisms:** Include visual and audio feedback to acknowledge player actions, such as collecting mementos, solving puzzles, and triggering events, to enhance engagement and immersion.

- **User Testing and Iteration:** Conduct user testing to gather feedback on the game's interface and user experience, and iterate on design improvements based on player input.

5. Technical Requirements

The technical requirements outline the specific technologies, platforms, and tools needed to develop and run the game "Myself." These requirements ensure the game's compatibility, performance, and integration capabilities.

- **Compatibility:** Ensure the game is compatible with major operating systems and can run smoothly on various hardware configurations.

- **Game Engine:** Use Unity as the game engine for development, leveraging its capabilities for creating a 3D interactive environment.

- **Programming Languages**: Utilize C# for scripting and development within Unity.

- **Third-Party Tools and APIs:** Integrate necessary third-party tools or APIs for features such as cloud storage for game saves, achievement tracking, and analytics.

- **Development Tools:** Utilize version control systems (e.g., Git) and project management tools to facilitate collaboration and track progress.

- **Performance Benchmarking:** Define performance benchmarks to ensure the game runs smoothly on target platforms, with minimal lag or frame rate drops.

- **Testing Frameworks:** Implement automated testing frameworks and conduct thorough testing to identify and fix bugs, ensuring compatibility across different platforms.

6. Non-functional Requirements

The non-functional requirements encompass factors such as performance, reliability, scalability, security, maintainability, compliance, and usability to establish the quality and effectiveness of the game "Myself" beyond its functional capabilities.

- **Performance:** The game should deliver fast loading times and smooth performance, even during complex scenes and interactions.

- **Reliability:** The system should be stable and dependable, minimizing disruptions and errors during gameplay.

- **Scalability:** The game should be able to handle an increasing number of players, data volume, and potential future expansions without significant performance degradation.

- **Security**: Robust security measures should be implemented to protect player data, prevent unauthorized access, and ensure secure communication for any online features.

- **Maintainability:** The game should be designed and structured in a way that allows for easy maintenance, updates, and enhancements.

- **Compliance:** The game should adhere to relevant legal and regulatory requirements, such as data protection and privacy regulations (e.g., GDPR, CCPA).

- **Usability:** The game should be designed with a focus on user-friendliness, providing an intuitive and engaging user experience that allows players to navigate and interact with ease.

7. Types of Future Modifications Foreseen

As the game "Myself" evolves, several types of future modifications may be necessary to enhance gameplay, address player feedback, and incorporate new features. These potential modifications ensure the game remains engaging, relevant, and up-to-date with technological advancements and player expectations.

- **Additional Content:** Introduce new scenes, minigames, and mementos to expand the narrative and provide players with more content to explore.

- **Enhanced Graphics and Audio:** Update graphics and audio elements to take advantage of advancements in technology, improving the overall visual and auditory experience.

- **Localization:** Expand multilingual support to include more languages, making the game accessible to a broader international audience.

- **Accessibility Improvements:** Implement additional accessibility features to cater to a wider range of players with different needs, ensuring the game is inclusive and user-friendly.

- **Performance Optimization:** Continuously optimize the game's performance to ensure smooth gameplay on newer hardware and operating systems, addressing any emerging issues as technology evolves.

- **Platform Expansion:** Adapt the game for additional platforms, such as mobile devices or gaming consoles, to reach a wider audience.

- **User Interface Enhancements:** Refine and update the user interface based on player feedback to improve navigation and interaction within the game.

- **Community Features:** Introduce features that allow players to share their progress, achievements, and experiences with others, fostering a community around the game.

- **Bug Fixes and Updates:** Regularly update the game to fix any bugs, improve stability, and incorporate player feedback, ensuring a polished and enjoyable experience.

Annex B.6. Level Design Document

This annex contains the document that was developed as a blueprint for each memory iteration in "Myself: Prologue."

Myself: Prologue - Level Design Document (LDD)

1. Introduction

The purpose of this document is to provide a comprehensive overview of the level design for "Myself: Prologue," a narrative-driven video game that explores the experience of living with senile dementia. This document outlines the puzzle mechanics, narrative structure, character interactions, and emotional themes that define the player experience in the game. It also includes flowcharts, dialogue actors, game actions, game characters, concepts, global events, item types, items, locations, object types, objects, and sequences that are relevant to the level design of "Myself: Prologue."

1.1. Document audience

This document is intended for the project stakeholders involved in the development of the game "Myself: Prologue," which serves as the Final Project for a Master's Degree in Game Design and Development. The audience includes the author, acting as developer, and the teaching staff involved in the development of the project. It provides a comprehensive overview of the level design for "Myself: Prologue," outlining the core elements and mechanics that define the player experience.

1.2. Game overview

"Myself: Prologue" serves as a proof of concept and introductory chapter to the full game "Myself." In this prologue, players are introduced to the core gameplay mechanics and the emotional narrative that will define the complete experience. The story begins with the main character revisiting key childhood memories in an ice cream parlor, where he interacts with various objects and characters to unlock deeper layers of his past. As the narrative progresses, players transition to different stages of the main character's life, including adulthood and adolescence, each offering unique interactions and challenges. Minigames embedded within the narrative, such as serving ice cream to reflect familial tensions or flying a kite to capture moments of joy, further immerse players in the main character's fragmented world. The prologue culminates in a poignant hospital scene, hinting at the main character's struggle with dementia and setting the stage for the broader story to unfold. "Myself: Prologue" is designed to give players a taste of the profound emotional journey that awaits in the full game.

2. Gameplay flow

The gameplay flow of "Myself: Prologue" will be non-linear, immersive, and emotionally resonant, offering players a sense of freedom, discovery, and connection to the main character's story. Players will navigate through different stages of the main character's life, interact with objects, characters, and environments, and engage in minigames, cutscenes, and free roam exploration that reveal deeper layers of his past and present. The game will feature a seamless transition between different temporalities, a balance of narrative-driven storytelling and interactive mechanics, and a sense of empathy and understanding for those affected by dementia.

2.1. Flowcharts

The flowcharts below illustrate the opening sequence, complete flow, and detailed flow of "Myself: Prologue," highlighting the core mechanics, locations, characters, and emotional themes that define the game. The flowcharts offer a visual representation of the narrative structure, gameplay flow, and emotional journey that players will experience as they explore the main character's memories, relationships, and struggles with dementia.

2.1.1. Starting sequence

This flowchart illustrates the starting sequence of "Myself: Prologue," from the opening screen to the main menu.
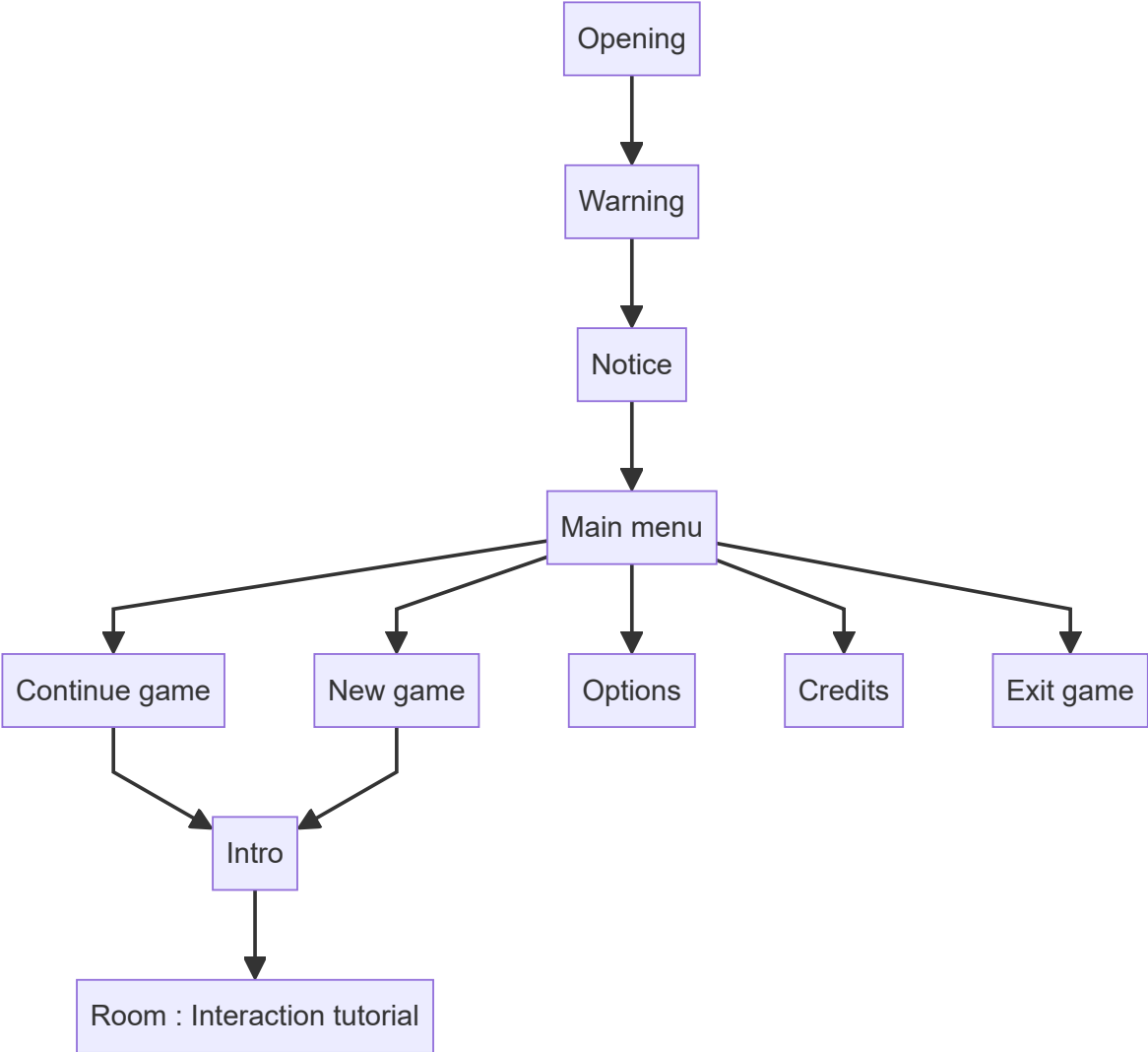
2.1.1.2. Complete flow - Linear

This flowchart illustrates the complete flow of "Myself: Prologue" in a linear sequence, from the first location to the final cutscene.
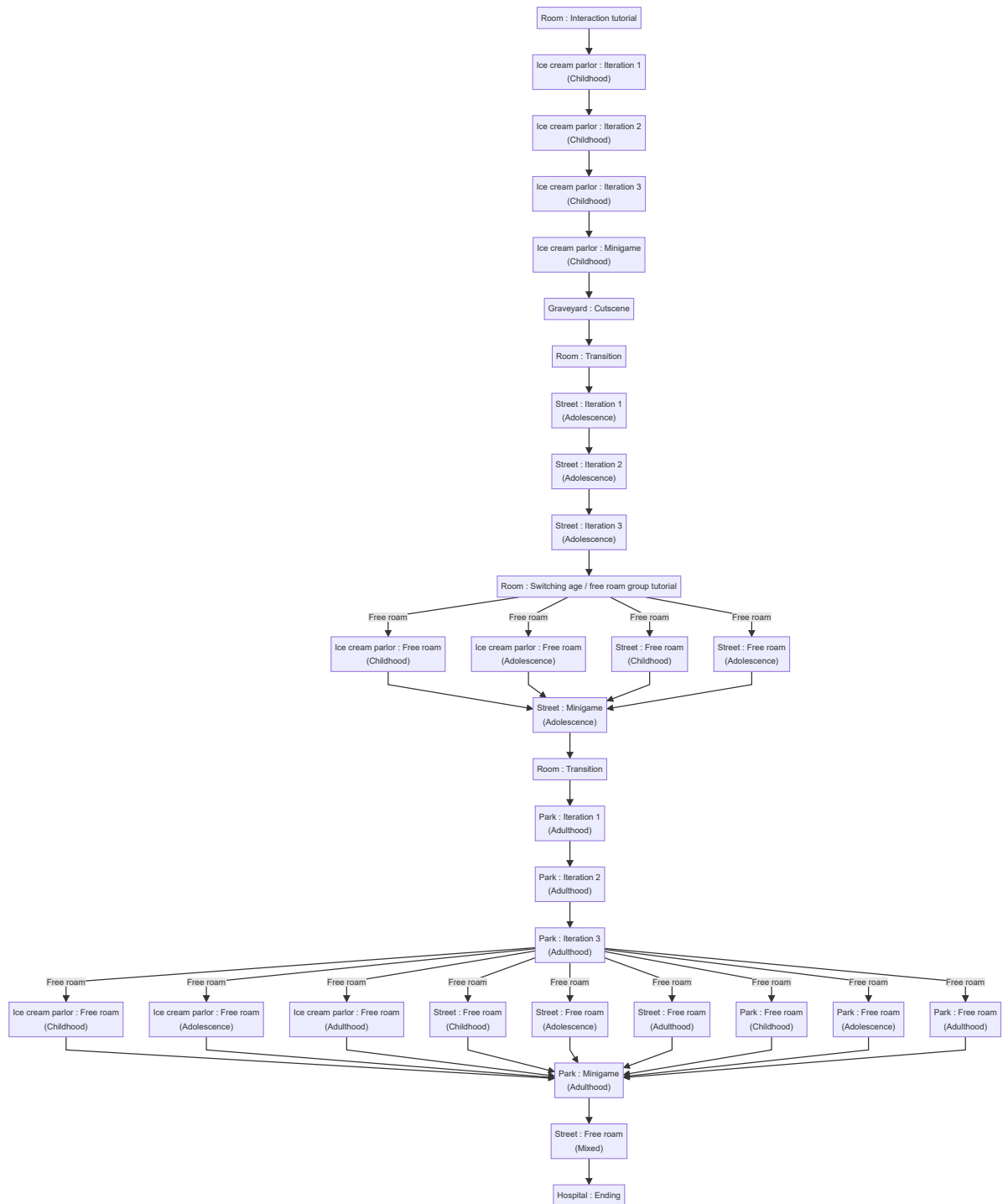
2.1.1.3. Complete flow - Pseudo-linear

This flowchart illustrates the complete flow of "Myself: Prologue" in a pseudo-linear sequence, allowing players to explore different locations and interactions at their own pace.
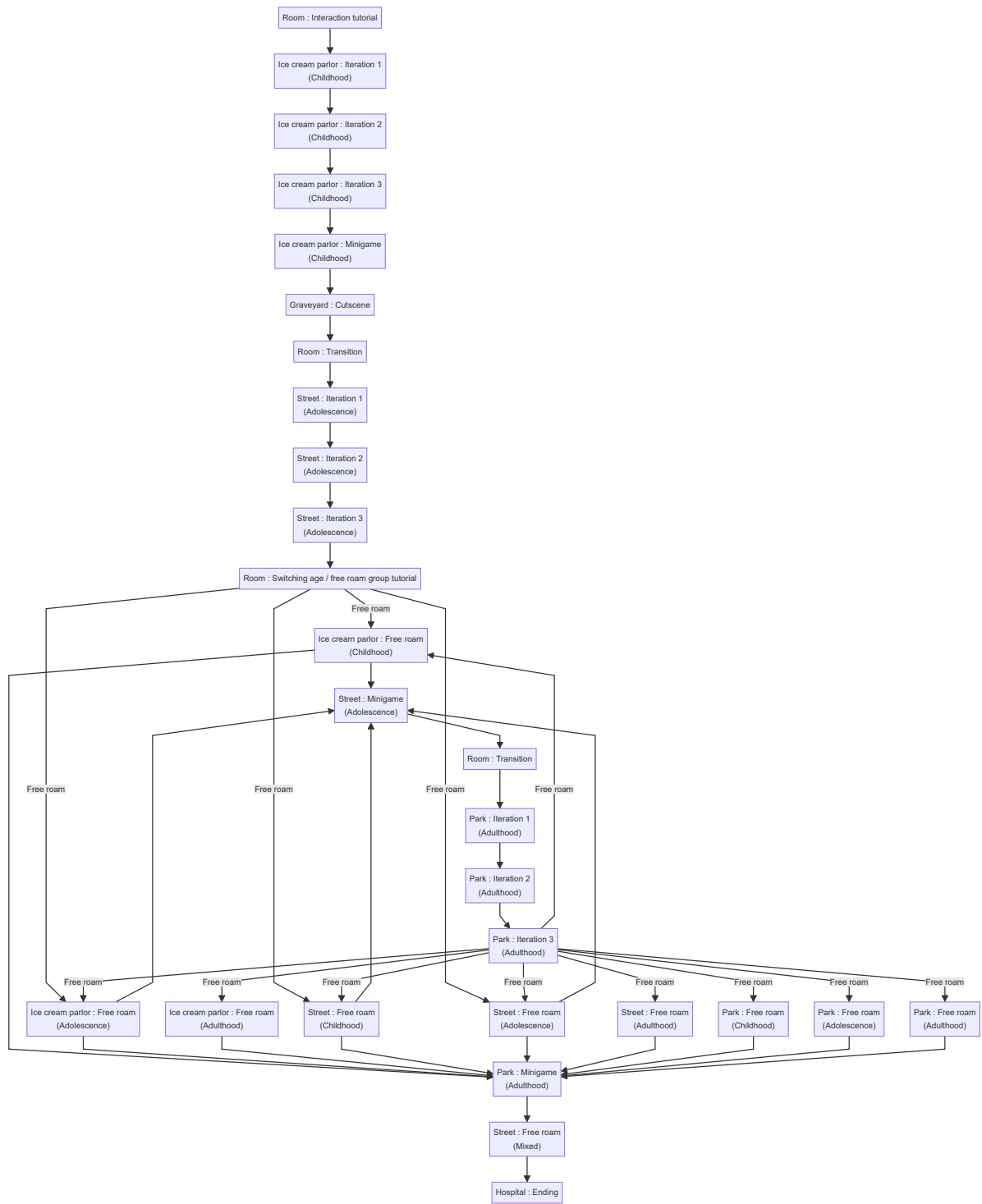
2.1.1.4. Complete flow - Non-linear

This flowchart illustrates the complete flow of "Myself: Prologue" in a non-linear sequence, allowing players to explore different locations, interactions, and memories at their own pace.
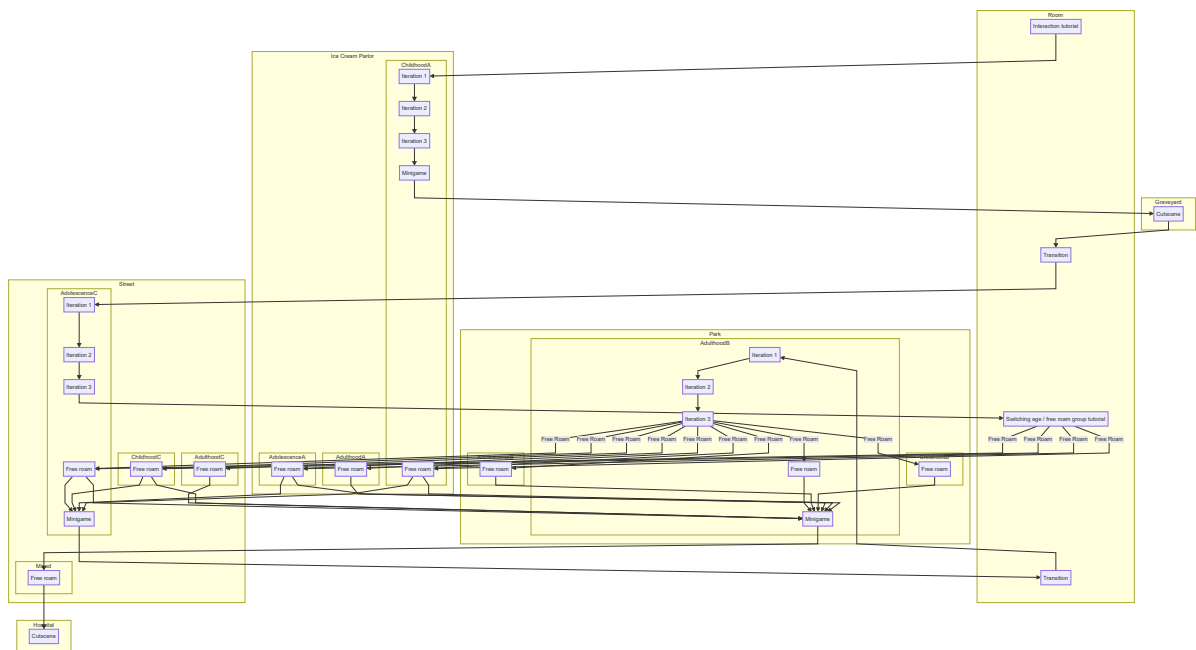
3. Entities

3.1. Dialogue actors

The table below lists the actors involved in the game's dialogues, along with a brief description of each character.

Actor	Description
[ACTOR::BROTHER_SHADOW]	The shadow version of the old man's brother
[ACTOR::BROTHER]	The old man's brother
[ACTOR::DAUGHTER]	The old man's daughter
[ACTOR::GRANDMA]	The old man's grandma
[ACTOR::IT_SUPPORT]	An IT support person
[ACTOR::MOMDAD_ARGUING]	Mom and dad arguing (minigame only)
[ACTOR::OLDMANADULT_DOUBLE]	The adult version and the shadow version of the old man together
[ACTOR::OLDMANADULT_SHADOW]	The shadow version of the old man
[ACTOR::OLDMANADULT]	The adult version of the old man
[ACTOR::OLDMANCHILD]	The child version of the old man
[ACTOR::OLDMANOLD]	The old version of the old man
[ACTOR::OLDMANTEEN]	The teen version of the old man
[ACTOR::POLICEMAN]	A male police officer
[ACTOR::POLICEWOMAN]	A female police officer

Actor	Description
[ACTOR::SON_IN_LAW_UNKNOWN]	The old man's son-in-law (unrecognized by the old man)
[ACTOR::SON_IN_LAW]	The old man's son-in-law
[ACTOR::UNKNOWN]	Unknown character (minigame only)
[ACTOR::VENDOR]	The ice cream vendor
[ACTOR::WIFE]	The old man's wife

3.2. Game actions

The table below lists the actions that can be performed by the player in the game, along with a brief description of each action.

Action	Description
[ACTION::DRAG]	Drag
[ACTION::HOVER]	Hover
[ACTION::INTERACT]	Interact
[ACTION::LEFT_CLICK]	Left click
[ACTION::PICK_UP]	Pick up
[ACTION::RELEASE]	Release
[ACTION::RIGHT_CLICK]	Right click
[ACTION::USE]	Use

3.3. Game characters

The table below lists the characters that appear in the game, along with the description provided to the player when interacting with them.

Character	Description
[CHARACTER::BROTHER]	My big brother. I don't know what I'd have done without him.
[CHARACTER::CARINGBROTHER]	When mom and dad fighted, my brother would take a [scoop] and play with me.
[CHARACTER::DAD]	Dad. He always knew how to make me laugh.
[CHARACTER::DAUGHTER]	My daughter was the light of my life. All she wanted was to fly her [kite].
[CHARACTER::DISTRESSEDGRANDMA]	There was something wrong with grandma.

Character	Description
[CHARACTER::EXCITEDDAUGHTER]	My daughter was the light of my life. That day was [special] for her.
[CHARACTER::FRIENDS]	My old friends were standing at the counter. They didn't notice me.
[CHARACTER::GRANDMA]	Grandma. She was the heart of our family. And she really liked her [ice cream]!
[CHARACTER::MOM]	Mom. She was the kindest person I've ever known.
[CHARACTER::NEIGHBORS]	Neighbors didn't like me. They thought I was a troublemaker.
[CHARACTER::NEWVENDOR]	The new proprietor of the ice cream parlor. She was really excited about the [opening].
[CHARACTER::OLDMANADULT]	My adult self. He has forgotten how to [play].
[CHARACTER::OLDMANADULTMIXED]	My adult self. He seems so [lost]. So... empty.
[CHARACTER::OLDMANCHILD]	My child self. He loved [drawing]. He always welcomed any inspiration.
[CHARACTER::OLDMANCHILDCRYING]	My child self. When he was sad, all he ever wanted was [mom].
[CHARACTER::OLDMANCHILDMIXED]	My child self. He was always happy... no, he was [afraid].
[CHARACTER::OLDMANOLD]	My old self. Why am I here? I don't remember being here!
[CHARACTER::OLDMANTEEN]	My adolescent self. He only thought about [graffiti] and [music].
[CHARACTER::OLDMANTEENMIXED]	My adolescent self. He was always so lonely, so [angry].
[CHARACTER::PARENTSARGUING]	Mom and dad used to argue a lot. I think it was because of grandma.
[CHARACTER::POLICEWOMAN]	The police officer was empathetic but firm.
[CHARACTER::US]	The three of us. Happy, as always.
[CHARACTER::VENDOR]	The ice cream vendor. She always had a smile on his face.
[CHARACTER::WIFE]	My wife acted erratically... She was not feeling especially well that day.

3.4. Concepts

The table below lists other concepts that are relevant to the game, along with a brief description of each concept.

Concept	Description
[CONCEPT::SCREEN]	The player's screen

3.5. Global events

The table below lists the global events that can occur in the game, along with a brief description of each event.

Event	Description
[EVENT::GAME_COMPLETED]	The game was completed.
[EVENT::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM_COMPLETED]	Player used the figurine on the album.
[EVENT::L0_NONE_I1_INT_ICECREAMFIGURINE_COMPLETED]	Player interacted with the figurine.
[EVENT::L0_NONE_I1_INTRO_1_COMPLETED]	Player completed the first part of the intro of the room.
[EVENT::L0_NONE_I1_INTRO_2_COMPLETED]	Player completed the second part of the intro of the room.
[EVENT::L0_NONE_I2_INT_SPRAY_ALBUM_COMPLETED]	Player used the spray on the album.
[EVENT::L0_NONE_I2_INT_SPRAY_COMPLETED]	Player interacted with the spray.
[EVENT::L0_NONE_I2_INTRO_COMPLETED]	Player completed the intro of the second iteration of the room.
[EVENT::L0_NONE_I3_INT_KITE_ALBUM_COMPLETED]	Player used the kite on the album.
[EVENT::L0_NONE_I3_INT_KITE_COMPLETED]	Player interacted with the kite.
[EVENT::L0_NONE_I3_INTRO_COMPLETED]	Player completed the intro of the third iteration of the room.
[EVENT::L1_NONE_I1_TUTORIAL_INTERACTION_COMPLETED]	Player completed the interaction tutorial.
[EVENT::L1_NONE_I2_TUTORIAL_SWITCHAGES_COMPLETED]	Player completed the switch ages tutorial.
[EVENT::L2_NONE_I1_INTRO_COMPLETED]	Player completed the intro of the album.
[EVENT::L3_ADOLESCENCE_ROAM1_INT_OPENING_NEWVENDOR_COMPLETED]	Player used the opening on the new vendor.

Event	Description
[EVENT::L3_ADOLESCENCE_ROAM2_INT_COIN_ARCADE_COMPLETED]	Player used the coin on the arcade.
[EVENT::L3_ADULTHOOD_ROAM2_INT_BIRTHDAY_DAUGHTER_COMPLETED]	Player used the birthday on the daughter.
[EVENT::L3_CHILD_COMPLETED]	Player completed the child stage of the ice cream parlor.
[EVENT::L3_CHILD_I1_INT_ICECREAM_GRADNMA_COMPLETED]	Player used the ice cream on grandma.
[EVENT::L3_CHILD_I1_INT_VENDOR_COMPLETED]	Player interacted with the vendor.
[EVENT::L3_CHILD_I1_INTRO_COMPLETED]	Player completed the intro of the child stage of the ice cream parlor.
[EVENT::L3_CHILD_I2_INT_DISTRESSEDGRANDMA_COMPLETED]	Player interacted with the distressed grandma.
[EVENT::L3_CHILD_I2_INT_SPILLEDICECREAM_COMPLETED]	Player interacted with the spilled ice cream.
[EVENT::L3_CHILD_I3_INT_SCOOP_BROTHER_COMPLETED]	Player used the scoop on the brother.
[EVENT::L3_CHILD_MINIGAME_COMPLETED]	Player completed the minigame of the ice cream parlor.
[EVENT::L3_CHILD_ROAM1_INT_POSTER_COMPLETED]	Player interacted with the poster.
[EVENT::L3_CHILD_ROAM2_INT_DISC_JUKEBOX_COMPLETED]	Player used the disc on the jukebox.
[EVENT::L4_NONE_COMPLETED]	Player completed the graveyard.
[EVENT::L5_ADOLESCENCE_COMPLETED]	Player completed the adolescence stage of the street.
[EVENT::L5_ADOLESCENCE_I1_BANKRUPTCY_PIZZAPARLOR_COMPLETED]	Player used the bankruptcy on the pizza parlor.
[EVENT::L5_ADOLESCENCE_I1_INTRO_COMPLETED]	Player completed the intro of the adolescence stage of the street.
[EVENT::L5_ADOLESCENCE_I2_INT_GRAFFITI_COMPLETED]	Player interacted with the graffiti.
[EVENT::L5_ADOLESCENCE_I3_INT_POLICEWOMAN_COMPLETED]	Player interacted with the policewoman.
[EVENT::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR_COMPLETED]	Player used the brick on the police car.
[EVENT::L5_ADOLESCENCE_MINIGAME_COMPLETED]	Player completed the minigame of the street.
[EVENT::L5_ADOLESCENCE_ROAM1_INT_SPRAY_OLDMANTEEN_COMPLETED]	Player used the spray on the teen version of himself.

Event	Description
[EVENT::L5_ADOLESCENCE_ROAM2_INT_MUSICIAN_OLDMANTEEN_COMPLETED]	Player used the musician on the teen version of himself.
[EVENT::L5_ADULTHOOD_INT_TOY_OLDMANADULT_COMPLETED]	Player used the toy on the adult version of himself.
[EVENT::L5_CHILD_ROAM1_INT_PIZZAPARLOR_PIZZAPARLORSIGN_COMPLETED]	Player used the pizza parlor on the pizza parlor sign.
[EVENT::L5_CHILD_ROAM2_INT_DRAWING_OLDMANCHILD_COMPLETED]	Player used the drawing on the child version of himself.
[EVENT::L5_MIXED_COMPLETED]	Player completed the mixed stage of the street.
[EVENT::L5_MIXED_I1_INT_FEAR_OLDMANCHILD_COMPLETED]	Player used the fear on the child version of himself.
[EVENT::L5_MIXED_I1_INTRO_COMPLETED]	Player completed the intro of the first iteration of the mixed stage of the street.
[EVENT::L5_MIXED_I2_INT_ANGER_OLDMANTEEN_COMPLETED]	Player used the anger on the teen version of himself.
[EVENT::L5_MIXED_I2_INTRO_COMPLETED]	Player completed the intro of the second iteration of the mixed stage of the street.
[EVENT::L5_MIXED_I3_INT_LOSS_OLDMANADULT_COMPLETED]	Player used the loss on the adult version of himself.
[EVENT::L5_MIXED_I3_INTRO_COMPLETED]	Player completed the intro of the third iteration of the mixed stage of the street.
[EVENT::L5_MIXED_I4_INTRO_COMPLETED]	Player completed the intro of the fourth iteration of the mixed stage of the street.
[EVENT::L6_ADOLESCENCE_ROAM2_INT_FRIENDS_HOVEL_COMPLETED]	Player used the friends on the hovel.
[EVENT::L6_ADULTHOOD_COMPLETED]	Player completed the adulthood stage of the park.
[EVENT::L6_ADULTHOOD_I1_INT_US_COMPLETED]	Player interacted with his family and himself.
[EVENT::L6_ADULTHOOD_I1_INTRO_COMPLETED]	Player completed the intro of the adulthood stage of the park.
[EVENT::L6_ADULTHOOD_I2_INT_WIFE_COMPLETED]	Player interacted with his wife.
[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]	Player interacted with his daughter.
[EVENT::L6_ADULTHOOD_MINIGAME_COMPLETED]	Player completed the minigame of the park.
[EVENT::L6_ADULTHOOD_ROAM2_INT_KITE_DAUGHTER_COMPLETED]	Player used the kite on his daughter.

Event	Description
[EVENT::L6_CHILD_ROAM2_INT_MOM_OLDMANCHILD_COMPLETED]	Player used the mom on the child version of himself.

3.6. Item types

The table below lists the types of items that can be found in the game, along with a brief description of each item type.

Item type	Description
[ITEM_TYPE::EVENT]	Event
[ITEM_TYPE::FEELING]	Feeling
[ITEM_TYPE::PEOPLE]	People
[ITEM_TYPE::PLACE]	Place
[ITEM_TYPE::THING]	Thing

3.7. Items

The table below lists the items that can be found in the game, along with the description that is provided to the player when interacting with them.

Item	Type	Description
[ITEM::ANGER]	[ITEM_TYPE::FEELING]	I am angry.
[ITEM::BANKRUPTCY]	[ITEM_TYPE::EVENT]	The country was going through a financial crisis. Many businesses went bankrupt.
[ITEM::BIRTHDAY]	[ITEM_TYPE::EVENT]	As much as I despised birthdays for what happened to me as a kid, I loved celebrating them with my friends.
[ITEM::BRICK]	[ITEM_TYPE::THING]	The street was still under construction. There was material everywhere.
[ITEM::COIN]	[ITEM_TYPE::THING]	I earnt this coin playing my guitar.
[ITEM::DISC]	[ITEM_TYPE::THING]	I found this disc on the street. It belonged to a musician that my parents loved.
[ITEM::DRAWING]	[ITEM_TYPE::THING]	This drawing was made by my daughter when she was just three. I always carried it with me.
[ITEM::FEAR]	[ITEM_TYPE::FEELING]	I am afraid.

Item	Type	Description
[ITEM::FRIENDS]	[ITEM_TYPE::PEOPLE]	My old friends were standing at the counter. They didn't notice me.
[ITEM::ICECREAM]	[ITEM_TYPE::THING]	A strawberry and vanilla ice cream cone. It was my grandma's favorite.
[ITEM::KITE]	[ITEM_TYPE::THING]	The kite we got for her birthday.
[ITEM::LOSS]	[ITEM_TYPE::FEELING]	I am empty.
[ITEM::MOM]	[ITEM_TYPE::PEOPLE]	My mom.
[ITEM::MUSICIAN]	[ITEM_TYPE::PEOPLE]	My parents were always playing her songs. It was the only time they seemed to get along.
[ITEM::OPENING]	[ITEM_TYPE::EVENT]	The pizza parlor threw a big party on the opening day.
[ITEM::PIZZAPARLOR]	[ITEM_TYPE::PLACE]	The pizza parlor was the best place in town.
[ITEM::ROOM_FIGURINE]	[ITEM_TYPE::THING]	I got this figurine from an ice cream parlor that I used to visit with my family.
[ITEM::ROOM_KITE]	[ITEM_TYPE::THING]	This kite belonged to my daughter. We used to fly it in the park.
[ITEM::ROOM_SPRAY]	[ITEM_TYPE::THING]	I used to draw graffiti on the walls of the street when I was a teenager.
[ITEM::SCOOP]	[ITEM_TYPE::THING]	A scoop that was used to serve the ice cream.
[ITEM::SPRAY]	[ITEM_TYPE::THING]	I used to draw graffiti on the walls of the street when I was a teenager.
[ITEM::TOY]	[ITEM_TYPE::THING]	A toy mom was getting me while I was in the park with grandma.

3.8. Locations

The table below lists the locations that can be found in the game, along with a brief description of each location.

Location	Description
[LOCATION::L0_ROOM]	The room serves as the starting point of the game, where players are introduced to the core mechanics and interactions. The room contains objects that trigger memories, tutorials on movement and interaction, and hints about the main character's past. The room also serves as a transition point between different stages of the main character's life, offering players a sense of continuity and progression.
[LOCATION::L1_TUTORIAL]	The tutorial stage is designed to familiarize players with the game's controls and mechanics. It provides step-by-step instructions on how to interact with objects, and switch between different stages of the main character's life.
[LOCATION::L2_ALBUM]	The album stage is a pivotal point in the game where players can review the memories and experiences of the main character's life. The album contains a collection of photographs, objects, and events that shape the narrative and emotional journey of the game.
[LOCATION::L3_ICECREAMPARLOR]	
[LOCATION::L4_GRAVEYARD]	
[LOCATION::L5_STREET]	
[LOCATION::L6_PARK]	
[LOCATION::L7_HOSPITAL]	

3.9. Object types

The table below lists the types of objects that can be found in the game, along with a brief description of each object type.

Object type	Description
[OBJECT_TYPE::INTERACTABLE]	Interactable objects that trigger memories or events when interacted with.
[OBJECT_TYPE::OBSERVABLE]	Observable objects that provide context or background information about the environment.
[OBJECT_TYPE::PICKABLE]	Pickable objects that can be collected or used in interactions.

3.10. Objects

The table below lists the objects that can be found in the game, along with the description that is provided to the player when interacting with them.

Object	Type
[OBJECT::ALBUM]	This album contains the memories of my life.
[OBJECT::ARCADE]	They replaced the jukebox with an arcade machine. I didn't have any [money] to play.
[OBJECT::BENCH]	My wife's favorite spot in the world. She spent hours sitting there.
[OBJECT::BIN]	My daughter's favorite spot to hide her treasures when we played pirates.
[OBJECT::BOAT]	The boat was full of holes. It hadn't been used for years.
[OBJECT::BRICK]	The street was still under construction. There was material everywhere.
[OBJECT::CASHREGISTER]	The parlor was always full of people. The register was probably full of money all the time.
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.
[OBJECT::FIGURINE]	That's the figurine I have at home.
[OBJECT::FLAVORS]	They had the richest variety of flavors in town.
[OBJECT::FOUNTAIN]	Even though there's a river just a few meters away, we loved bathing our feet on the fountain.
[OBJECT::GRAFFITI]	I used to draw graffiti on the walls of the street when I was a teenager.
[OBJECT::HOVEL]	Groups of [friends] were always celebrating all kind of events in the hovel.
[OBJECT::ICECREAM]	A strawberry and vanilla ice cream cone. It was my grandma's favorite.
[OBJECT::JUKEBOX]	They had the best music playing all the time. It had the best [discs].
[OBJECT::KITE]	The kite we got for her birthday.
[OBJECT::MENU]	On top of ice creams, they also served waffles, milkshakes, and sundaes.
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.
[OBJECT::POLICECAR]	I hated the police. I always thought of [smashing] their cars.

Object	Type
[OBJECT::POSTER]	A poster of a new pizza place that opened nearby.
[OBJECT::ROOM_FIGURINE]	I got this figurine from an ice cream parlor that I used to visit with my family.
[OBJECT::ROOM_KITE]	This kite belonged to my daughter. We used to fly it in the park.
[OBJECT::ROOM_SPRAY]	I used to draw graffiti on the walls of the street when I was a teenager.
[OBJECT::SCOOP]	A scoop that was used to serve the ice cream.
[OBJECT::SPILLEDICECREAM]	The ice cream cone was on the floor.
[OBJECT::WORKSITE]	The street has been under construction for years.

3.11. Sequences

The table below lists the sequences that can occur in the game, along with a brief description of each sequence.

Sequence	Description
[SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM]	The player uses the figurine on the album.
[SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE]	The player interacts with the figurine.
[SEQUENCE::L0_NONE_I1_INTRO_1]	The player watches the first part of the intro of the room.
[SEQUENCE::L0_NONE_I1_INTRO_2]	The player watches the second part of the intro of the room.
[SEQUENCE::L0_NONE_I2_INT_SPRAY_ALBUM]	The player uses the spray on the album.
[SEQUENCE::L0_NONE_I2_INT_SPRAY]	The player interacts with the spray.
[SEQUENCE::L0_NONE_I2_INTRO]	The player watches the intro of the second iteration of the room.
[SEQUENCE::L0_NONE_I3_INT_KITE_ALBUM]	The player uses the kite on the album.
[SEQUENCE::L0_NONE_I3_INT_KITE]	The player interacts with the kite.

Sequence	Description
[SEQUENCE::L0_NONE_I3_INTRO]	The player watches the intro of the third iteration of the room.
[SEQUENCE::L1_NONE_I1_TUTORIAL_INTERACTION]	The player completes the interaction tutorial.
[SEQUENCE::L1_NONE_I2_TUTORIAL_SWITCHAGES]	The player completes the switch ages tutorial.
[SEQUENCE::L2_NONE_I1_INTRO]	The player watches the intro of the album.
[SEQUENCE::L3_ADOLESCENCE_ROAM1_INT_OPENING_NEWVENDOR]	The player uses the opening on the new vendor.
[SEQUENCE::L3_ADOLESCENCE_ROAM2_INT_COIN_ARCADE]	The player uses the coin on the arcade.
[SEQUENCE::L3_ADULTHOOD_ROAM2_INT_BIRTHDAY_DAUGHTER]	The player uses the birthday on the daughter.
[SEQUENCE::L3_CHILD_I1_INT_ICECREAM_GRANDMA]	The player uses the ice cream on grandma.
[SEQUENCE::L3_CHILD_I1_INT_VENDOR]	The player interacts with the vendor.
[SEQUENCE::L3_CHILD_I1_INTRO]	The player watches the intro of the child stage of the ice cream parlor.
[SEQUENCE::L3_CHILD_I2_INT_DISTRESSEDGRANDMA]	The player interacts with the distressed grandma.
[SEQUENCE::L3_CHILD_I2_INT_SPILLEDICECREAM]	The player interacts with the spilled ice cream.
[SEQUENCE::L3_CHILD_I3_INT_SCOOP_BROTHER]	The player uses the scoop on the brother.
[SEQUENCE::L3_CHILD_I4_OUTRO]	The player watches the outro of the child stage of the ice cream parlor.
[SEQUENCE::L3_CHILD_ROAM1_INT_POSTER]	The player interacts with the poster.
[SEQUENCE::L3_CHILD_ROAM2_INT_DISC_JUKEBOX]	The player uses the disc on the jukebox.
[SEQUENCE::L4_NONE_I1_INTRO]	The player watches the intro of the graveyard.
[SEQUENCE::L5_ADOLESCENCE_I1_INT_BANKRUPTCY_PIZZAPARLOR]	The player uses the bankruptcy on the pizza parlor.

Sequence	Description
[SEQUENCE::L5_ADOLESCENCE_I1_INTRO]	The player watches the intro of the adolescence stage of the street.
[SEQUENCE::L5_ADOLESCENCE_I2_INT_GRAFFITI]	The player interacts with the graffiti.
[SEQUENCE::L5_ADOLESCENCE_I3_INT_POLICEWOMAN]	The player interacts with the policewoman.
[SEQUENCE::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR]	The player uses the brick on the police car.
[SEQUENCE::L5_ADOLESCENCE_I5_OUTRO]	The player watches the outro of the adolescence stage of the street.
[SEQUENCE::L5_ADOLESCENCE_ROAM1_INT_SPRAY_OLDMANTEEN]	The player uses the spray on the teen version of himself.
[SEQUENCE::L5_ADOLESCENCE_ROAM2_INT_MUSICIAN_OLDMANTEEN]	The player uses the musician on the teen version of himself.
[SEQUENCE::L5_ADULTHOOD_INT_TOY_OLDMANADULT]	The player uses the toy on the adult version of himself.
[SEQUENCE::L5_CHILD_ROAM1_INT_PIZZAPARLOR_PIZZAPARLORSIGN]	The player uses the pizza parlor on the pizza parlor sign.
[SEQUENCE::L5_CHILD_ROAM2_INT_DRAWING_OLDMANCHILD]	The player uses the drawing on the child version of himself.
[SEQUENCE::L5_MIXED_I1_INT_FEAR_OLDMANCHILD]	The player uses the fear on the child version of himself.
[SEQUENCE::L5_MIXED_I1_INTRO]	The player watches the intro of the first iteration of the mixed stage of the street.
[SEQUENCE::L5_MIXED_I2_INT_ANGER_OLDMANTEEN]	The player uses the anger on the teen version of himself.
[SEQUENCE::L5_MIXED_I2_INTRO]	The player watches the intro of the second iteration of the mixed stage of the street.
[SEQUENCE::L5_MIXED_I3_INT_LOSS_OLDMANADULT]	The player uses the loss on the adult version of himself.

Sequence	Description
[SEQUENCE::L5_MIXED_I3_INTRO]	The player watches the intro of the third iteration of the mixed stage of the street.
[SEQUENCE::L5_MIXED_I4_INT_OLDMANOLD]	The player uses the old version of himself on the old version of himself.
[SEQUENCE::L5_MIXED_I4_INTRO]	The player watches the intro of the fourth iteration of the mixed stage of the street.
[SEQUENCE::L6_ADOLESCENCE_ROAM2_INT_FRIENDS_HOVEL]	The player uses the friends on the hovel.
[SEQUENCE::L6_ADULTHOOD_I1_INT_US]	The player interacts with his family and himself.
[SEQUENCE::L6_ADULTHOOD_I1_INTRO]	The player watches the intro of the adulthood stage of the park.
[SEQUENCE::L6_ADULTHOOD_I2_INT_WIFE]	The player interacts with his wife.
[SEQUENCE::L6_ADULTHOOD_I3_INT_DAUGHTER]	The player interacts with his daughter.
[SEQUENCE::L6_ADULTHOOD_I4_OUTRO]	The player watches the outro of the adulthood stage of the park.
[SEQUENCE::L6_ADULTHOOD_ROAM2_INT_KITE_DAUGHTER]	The player uses the kite on his daughter.
[SEQUENCE::L6_CHILD_ROAM2_INT_MOM_OLDMANCHILD]	The player uses the mom on the child version of himself.
[SEQUENCE::L7_NONE_I1_INTRO]	The player watches the intro of the hospital.

4. Detailed flow

4.1. Location list

- Location 1 - Room : Introduction
- Location 2 - Tutorial : Interactions
- Location 3 - Room : Introduction - Continued
- Location 4 - Album : Introduction
- Location 5 - Ice cream parlor : Iteration 1 (Childhood)
- Location 6 - Ice cream parlor : Iteration 2 (Childhood)

- Location 7 - Ice cream parlor : Iteration 3 (Childhood)
- Location 8 - Ice cream parlor : Minigame (Childhood)
- Location 9 - Ice cream parlor : After minigame (Childhood)
- Location 10 - Graveyard : Cutscene
- Location 11 - Room : Transition to Street
- Location 12 - Street : Iteration 1 (Adolescence)
- Location 13 - Street : Iteration 2 (Adolescence)
- Location 14 - Street : Iteration 3 (Adolescence)
- Location 15 - Street : Iteration 4 (Adolescence)
- Location 16 - Album : Switching age / free roam group tutorial
- Location 17a - Ice cream parlor : Free roam (Childhood)
- Location 17b - Ice cream parlor : Free roam (Adolescence)
- Location 17c - Street : Free roam (Childhood)
- Location 17d - Street : Free roam (Adolescence)
- Location 18 - Street : Minigame (Adolescence)
- Location 19 - Street : After minigame (Adolescence)
- Location 20 - Room : Transition to Park
- Location 21 - Park : Iteration 1 (Adulthood)
- Location 22 - Park : Iteration 2 (Adulthood)
- Location 23 - Park : Iteration 3 (Adulthood)
- Location 24a - Ice cream parlor : Free roam (Childhood)
- Location 24b - Ice cream parlor : Free roam (Adolescence)
- Location 24c - Ice cream parlor : Free roam (Adulthood)
- Location 24d - Street : Free roam (Childhood)
- Location 24e - Street : Free roam (Adolescence)
- Location 24f - Street : Free roam (Adulthood)
- Location 24g - Park : Free roam (Childhood)
- Location 24h - Park : Free roam (Adolescence)
- Location 24i - Park : Free roam (Adulthood)
- Location 25 - Park : Minigame (Adulthood)
- Location 26 - Park : After minigame (Adulthood)
- Location 27 - Street : Final sequence (Mixed) - Iteration 1
- Location 28 - Street : Final sequence (Mixed) - Iteration 2
- Location 29 - Street : Final sequence (Mixed) - Iteration 3
- Location 30 - Street : Final sequence (Mixed) - Iteration 4
- Location 31 - Hospital : Ending

Location 1 - Room : Introduction

Description

First visit to the Room level, the starting location of the game, which acts as a transition point between story milestones. An introductory sequence introduces the player to the main character. There are no objects to interact with in this location at the moment.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-

Global events

Event	Description
[EVENT::L0_NONE_I1_INTRO_1_COMPLETED]	The player has completed the introduction to the story.

Action sequences

Action sequence ID	Description
[SEQUENCE::L0_NONE_I1_INTRO_1]	Introduction to the story.

[SEQUENCE::L0_NONE_I1_INTRO_1] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I1_INTRO_1]
Events required	-
Interactions required	-
Event triggered	[EVENT::L0_NONE_I1_INTRO_1_COMPLETED]
Item pickup	-

Main Character (Old)

[CONCEPT::SCREEN] fades in to the room.

This room is so full of memories... I wonder where to start.

Maybe from the beginning. There must be something here that can help me remember.

Ah! The ice cream figurine. I remember this from my childhood. I'll take a closer look.

Hmmmm... Wait, how was I supposed to do that?

Main Character (Old)
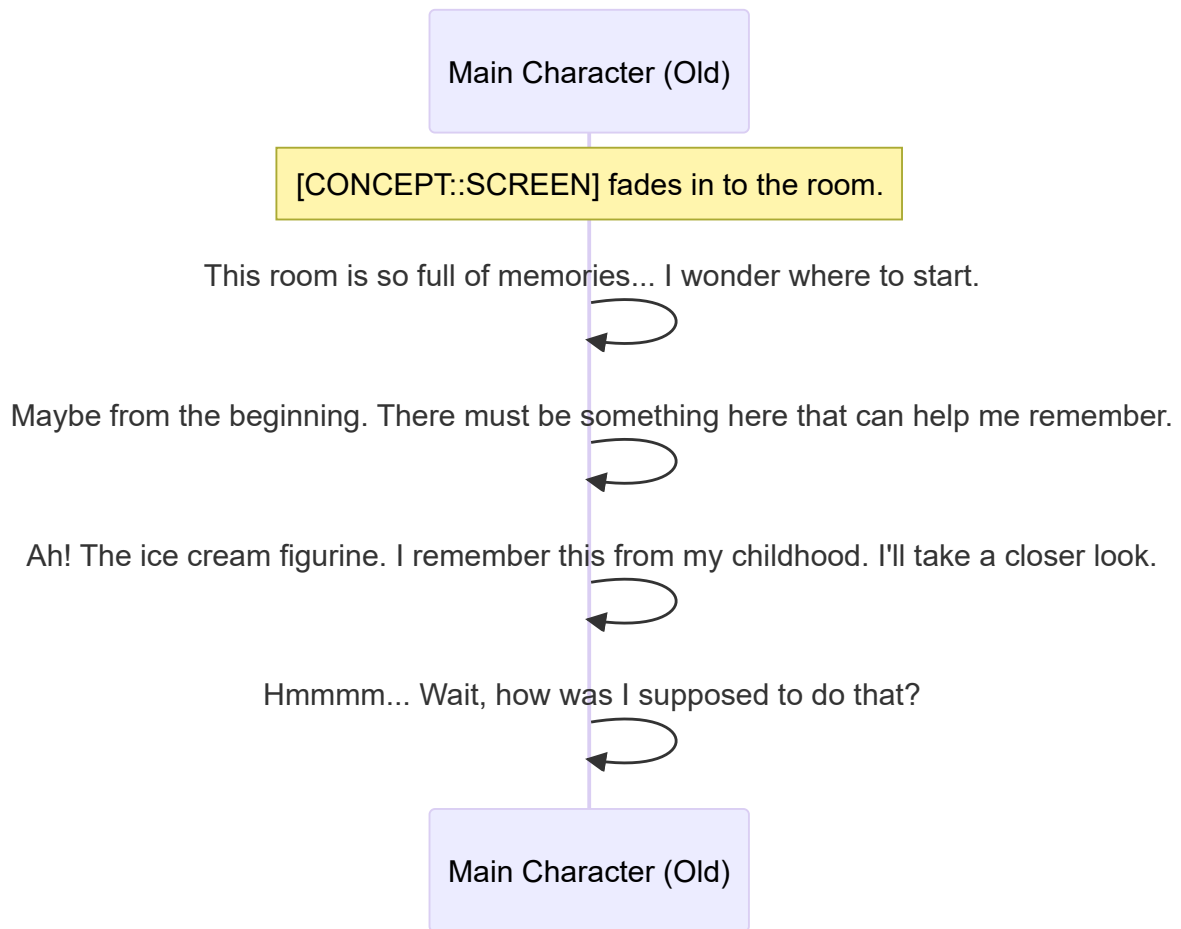
Location 2 - Tutorial : Interactions

[Back to Location List](#)

Description

First visit to the Tutorial level. A tutorial introduces the player to the basic controls and core mechanics: interacting with objects, picking up items, and using them. The tutorial is presented as a flashback to the main character receiving help from an IT support character. There are no objects to interact with in this location.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-

Global events

Event	Description
[EVENT::L1_NONE_I1_TUTORIAL_INTERACTION_COMPLETED]	The player has completed the tutorial on interactions.

Action sequences

Action sequence ID	Description
[SEQUENCE::L1_NONE_I1_TUTORIAL_INTERACTION]	Introduction to the room and core mechanics.

[SEQUENCE::L1_NONE_I1_TUTORIAL_INTERACTION] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L1_NONE_I1_TUTORIAL_INTERACTION]
Events required	[EVENT::L0_NONE_I1_INTRO_1_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L1_NONE_I1_TUTORIAL_INTERACTION_COMPLETED]
Item pickup	-
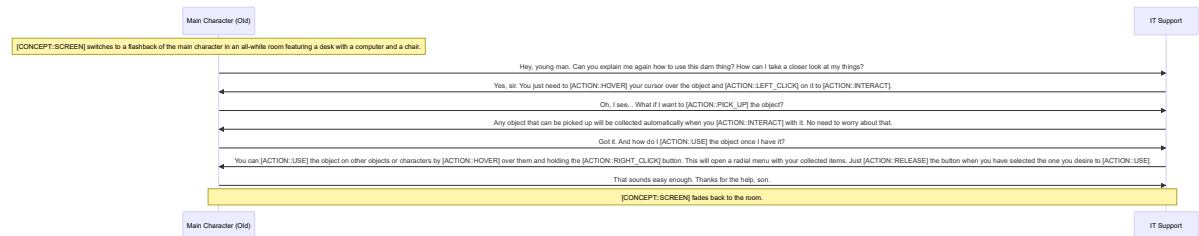
Location 3 - Room : Introduction - Continued

[Back to Location List](#)

Description

Second visit to the Room level, which allows the player to try the mechanics introduced in the Tutorial level. The player can interact with and pick up an ice cream figurine and use it on a photo album to unlock the first memory.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[ITEM::ROOM_FIGURINE]	I got this figurine from an ice cream parlor that I used to visit with my family.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	• [x] => [OBJECT::ALBUM] => [SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM]
[OBJECT::ALBUM]	This album contains the memories of my life.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::ROOM_FIGURINE] => [SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM]
[OBJECT::ROOM_FIGURINE]	I got this figurine from an ice cream parlor that I used to visit with my family.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE]

Global events

Event	Description
[EVENT::L0_NONE_I1_INTRO_2_COMPLETED]	The player has completed the introduction in the room.

Event	Description
[EVENT::L0_NONE_I1_INT_ICECREAMFIGURINE_COMPLETED]	The player has interacted with the ice cream figurine.
[EVENT::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM_COMPLETED]	The player has used the ice cream figurine on the photo album.

Action sequences

Action sequence ID	Description
[SEQUENCE::L0_NONE_I1_INTRO_2]	Introduction to the room and core mechanics.
[SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE]	Interacting with the ice cream figurine.
[SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM]	Using the ice cream figurine on the photo album.

[SEQUENCE::L0_NONE_I1_INTRO_2] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I1_INTRO_2]
Events required	[EVENT::L1_NONE_I1_TUTORIAL_INTERACTION_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L0_NONE_I1_INTRO_COMPLETED]
Item pickup	-
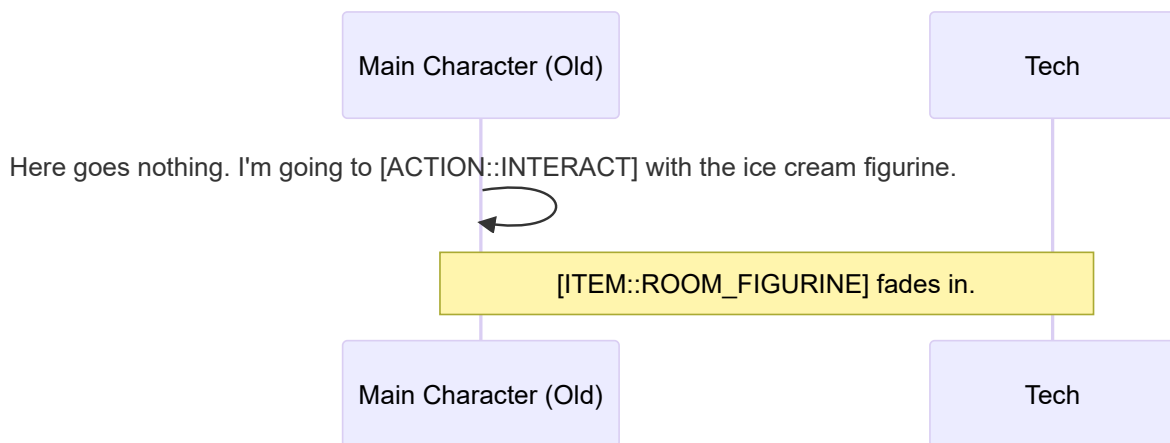
[SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE] Action sequence 2 - Interacting with the ice cream figurine

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE]
Events required	[EVENT::L0_NONE_I1_INTRO_COMPLETED]
Interactions required	[ACTION::INTERACT] => [OBJECT::ROOM_FIGURINE]
Event triggered	[EVENT::L0_NONE_I1_INT_ICECREAMFIGURINE_COMPLETED]
Item pickup	[ITEM::ROOM_FIGURINE]

```
                    Main Character (Old)
                            |
This figurine belonged to an ice cream parlor where I used to go with my family every Sunday. I got it when they closed down.
                            ↻
    My grandmother loved that place. She'd be so happy to see this again. I miss her so much...
                            ↻
She's actually a good place to start. There must be a photo of her in that album over there. I should [ACTION::USE] the ice cream figurine on that photo album over there.
                            ↻
                  [OBJECT::ALBUM] fades in.
                            |
                    Main Character (Old)
```

[SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM] Action sequence 3 - Using the ice cream figurine on the photo album

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM]
Events required	[EVENT::L0_NONE_I1_INT_ICECREAMFIGURINE_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM_COMPLETED]
Item pickup	-

```
                 Main Character (Old)
                         |
Okay, I should [ACTION::INTERACT] with the photo album now.
                         ↻
                 Main Character (Old)
```
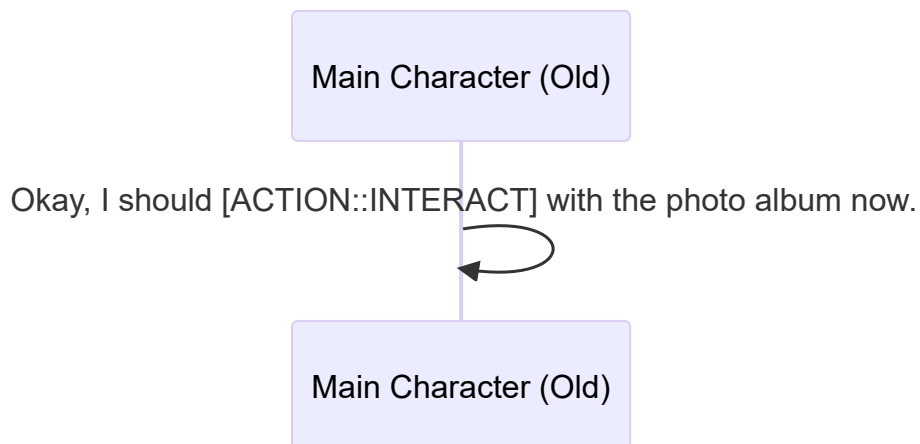
Location 4 - Album : Introduction

Description

First visit to the Album level, which acts as a hub for accessing the unlocked memories. Only the first memory, the ice cream parlor, is available at this point. The player can interact with the ice cream parlor photo to access the corresponding location.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-

Global events

Event	Description
[EVENT::L2_NONE_I1_INTRO_COMPLETED]	The player has completed the introduction to the album.

Action sequences

Action sequence ID	Description
[SEQUENCE::L2_NONE_I1_INTRO]	Introduction to the room and core mechanics.

[SEQUENCE::L2_NONE_I1_INTRO] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L2_NONE_I1_INTRO]
Events required	[EVENT::L0_NONE_I1_INT_ICECREAMFIGURINE_ALBUM_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L2_NONE_I1_INTRO_COMPLETED]
Item pickup	-
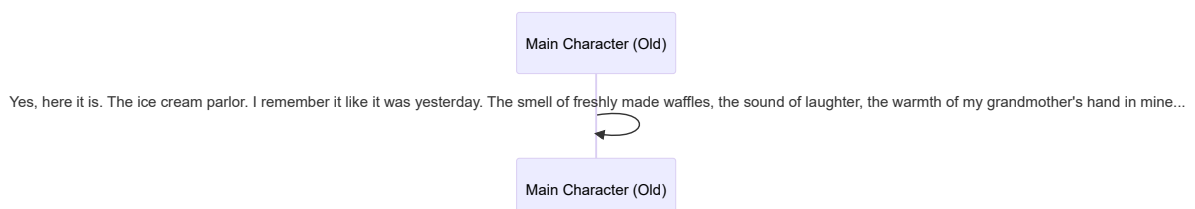
```
          Main Character (Old)
                   |
Yes, here it is. The ice cream parlor. I remember it like it was yesterday. The smell of freshly made waffles, the sound of laughter, the warmth of my grandmother's hand in mine...
                   |
          Main Character (Old)
```

Location 5 - Ice cream parlor : Iteration 1 (Childhood)

Description

First visit to the Ice cream parlor level. A dialogue introduces the player to the main character's memories of the ice cream parlor and his grandmother. The player can interact with the vendor and pick up an ice cream cone to give to the grandmother.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::BROTHER]	My big brother. I don't know what I'd have done without him.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::DAD]	Dad. He always knew how to make me laugh.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::GRANDMA]	Grandma. She was the heart of our family. And she really liked her [ice cream]!	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::ICECREAM] => [SEQUENCE::L3_CHILD_I1_INT_ICECREAM_GRANDMA]
[CHARACTER::MOM]	Mom. She was the kindest person I've ever known.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::MOM]
[CHARACTER::OLDMANCHILD]	My child self. He was always happy... but he feels sad.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::VENDOR]	The ice cream vendor. She always had a smile on his face.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L3_CHILD_I1_INT_VENDOR]
[ITEM::ICECREAM]	A strawberry and vanilla ice cream cone. It was my grandma's favorite.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	• [x] => [CHARACTER::GRANDMA] => [SEQUENCE::L3_CHILD_I1_INT_ICECREAM_GRANDMA]
[ITEM::MOM]	My mom.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::PEOPLE]	-
[ITEM::SCOOP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::CASHREGISTER]	The parlor was always full of people. The register was probably full of money all the time.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FIGURINE]	That's the figurine I have at home.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FLAVORS]	They had the richest variety of flavors in town.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::ICECREAM]	A strawberry and vanilla ice cream cone. It was my grandma's favorite.	[OBJECT_TYPE::OBSERVABLE]	-	[ACTION::INTERACT] => [ITEM::ICECREAM]
[OBJECT::JUKEBOX]	They had the best music playing all the time. It had the best [discs].	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::MENU]	On top of ice creams, they also served waffles, milkshakes, and sundaes.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::SCOOP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::SCOOP]

Global events

Event	Description
[EVENT::L3_CHILD_I1_INTRO_COMPLETED]	The player has completed the introduction to the ice cream parlor scene.
[EVENT::L3_CHILD_I1_INT_VENDOR_COMPLETED]	The player has interacted with the ice cream vendor.
[EVENT::L3_CHILD_I1_INT_ICECREAM_GRANDMA_COMPLETED]	The player has given the ice cream to Grandma.

Action sequences

Action sequence ID	Description
[SEQUENCE::L3_CHILD_I1_INTRO]	Introduction to the ice cream parlor scene.

[SEQUENCE::L3_CHILD_I1_INTRO] Action sequence 1 - Introduction

Concept	Value
Action sequence ID	[SEQUENCE::L3_CHILD_I1_INTRO]
Events required	[EVENT::L2_NONE_I1_INTRO_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L3_CHILD_I1_INTRO_COMPLETED]
Item pickup	-

Main Character (Child) --- Shadow Brother

[CONCEPT::SCREEN] fades in to the ice cream parlor.

I loved coming here with my family. They had the best sundaes in town.

I wonder if my grandmother came with us that day. She always knew how to make me smile.

The atmosphere, the colors, the smells... This was the happiest place on Earth for me.

[CONCEPT::SCREEN] shakes.

...until it wasn't.

Huh? Who are you? What do you mean?

He's gone. I don't understand... What happened here?

Hmmm... Let's see what memories this place holds.

Main Character (Child) --- Shadow Brother

[SEQUENCE::L3_CHILD_I1_INT_VENDOR] Action sequence 2 - Interacting with the ice cream vendor

Concept	Value
Action sequence ID	[SEQUENCE::L3_CHILD_I1_INT_VENDOR]
Events required	[EVENT::L3_CHILD_I1_INTRO_COMPLETED]
Interactions required	[ACTION::INTERACT] => [CHARACTER::VENDOR]
Event triggered	[EVENT::L3_CHILD_I1_INT_VENDOR_COMPLETED]
Item pickup	-
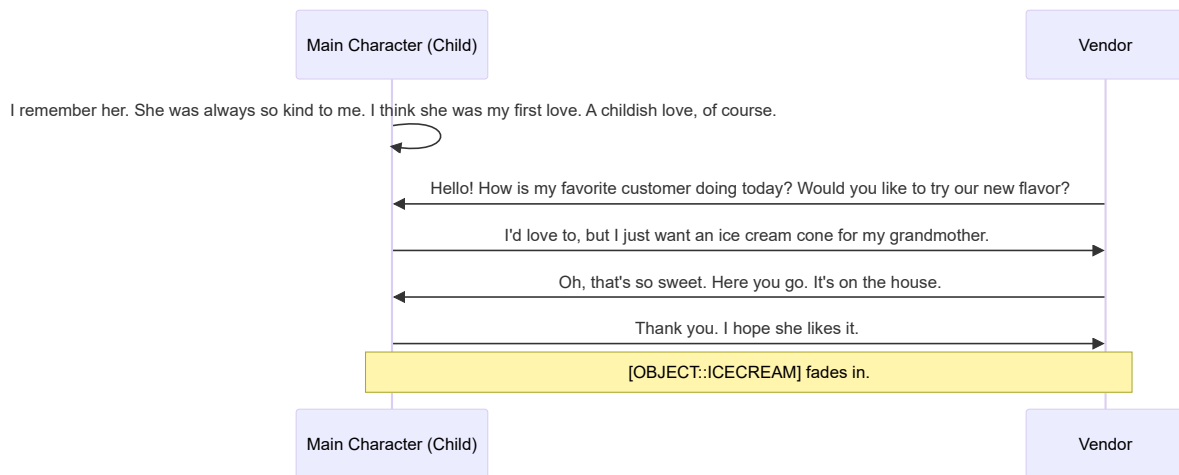
[SEQUENCE::L3_CHILD_I1_INT_ICECREAM_GRANDMA] Action sequence 3 - Giving the ice cream to Grandma

Concept	Value
Action sequence ID	[SEQUENCE::L3_CHILD_I1_INT_ICECREAM_GRANDMA]
Events required	[EVENT::L3_CHILD_I1_INT_VENDOR_COMPLETED]
Interactions required	[ITEM::ICECREAM] => [CHARACTER::GRANDMA]
Event triggered	[EVENT::L3_CHILD_I1_INT_ICECREAM_GRANDMA_COMPLETED]
Item pickup	-
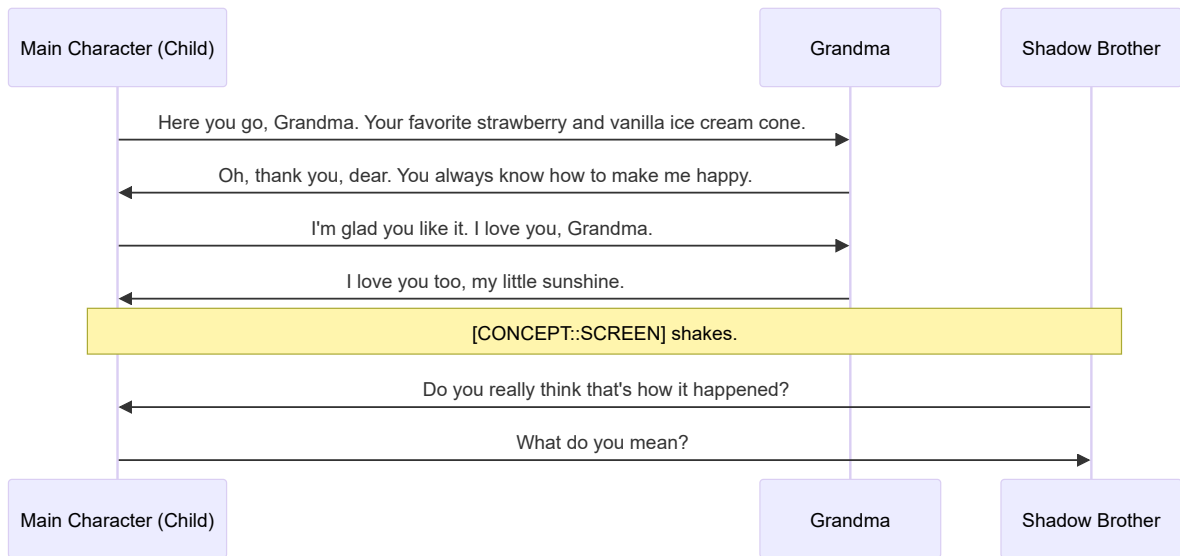
Location 6 - Ice cream parlor : Iteration 2 (Childhood)

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Description

Second iteration of the Ice cream parlor level. The player can interact with a distressed grandma and a spilled ice cream cone.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::BROTHER]	My big brother. I don't know what I'd have done without him.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::DAD]	Dad. He always knew how to make me laugh.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::DISTRESSEDGRANDMA]	There was something wrong with grandma.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L3_CHILD_I2_INT_DISTRESSEDGRANDMA]
[CHARACTER::GRANDMA]	Grandma. She was the heart of our family. And she really liked her [ice cream]!	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::MOM]	Mom. She was the kindest person I've ever known.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::MOM]
[CHARACTER::OLDMANCHILD]	My child self. He was always happy... but he feels sad.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::VENDOR]	The ice cream vendor. She always had a smile on his face.	[OBJECT_TYPE::OBSERVABLE]	-	-
[ITEM::MOM]	My mom.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::PEOPLE]	-
[ITEM::SCOOP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::CASHREGISTER]	The parlor was always full of people. The register was probably full of money all the time.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FIGURINE]	That's the figurine I have at home.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FLAVORS]	They had the richest variety of flavors in town.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::ICECREAM]	A strawberry and vanilla ice cream cone. It was my grandma's favorite.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::JUKEBOX]	They had the best music playing all the time. It had the best [discs].	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::MENU]	On top of ice creams, they also served waffles, milkshakes, and sundaes.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::SCOOP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::SCOOP]
[OBJECT::SPILLEDICECREAM]	The ice cream cone was on the floor.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L3_CHILD_I2_INT_SPILLEDICECREAM]

Global events

Event	Description
[EVENT::L3_CHILD_I2_INT_DISTRESSEDGRANDMA_COMPLETED]	The player has interacted with the distressed grandma.
[EVENT::L3_CHILD_I2_INT_SPILLEDICECREAM_COMPLETED]	The player has interacted with the spilled ice cream.

Action sequences

Action sequence ID	Description
[SEQUENCE::L3_CHILD_I2_INT_DISTRESSEDGRANDMA]	Interacting with the distressed grandma.
[SEQUENCE::L3_CHILD_I2_INT_SPILLEDICECREAM]	Interacting with the spilled ice cream.

[SEQUENCE::L3_CHILD_I2_INT_DISTRESSEDGRANDMA] Action sequence 1 - Interacting with the distressed grandma

Concept	Value
Action sequence ID	[SEQUENCE::L3_CHILD_I2_INT_DISTRESSEDGRANDMA]
Events required	[EVENT::L3_CHILD_I1_INT_ICECREAM_GRANDMA_COMPLETED]
Interactions required	[ACTION::INTERACT] => [CHARACTER::DISTRESSEDGRANDMA]
Event triggered	[EVENT::L3_CHILD_I2_INT_DISTRESSEDGRANDMA_COMPLETED]
Item pickup	-
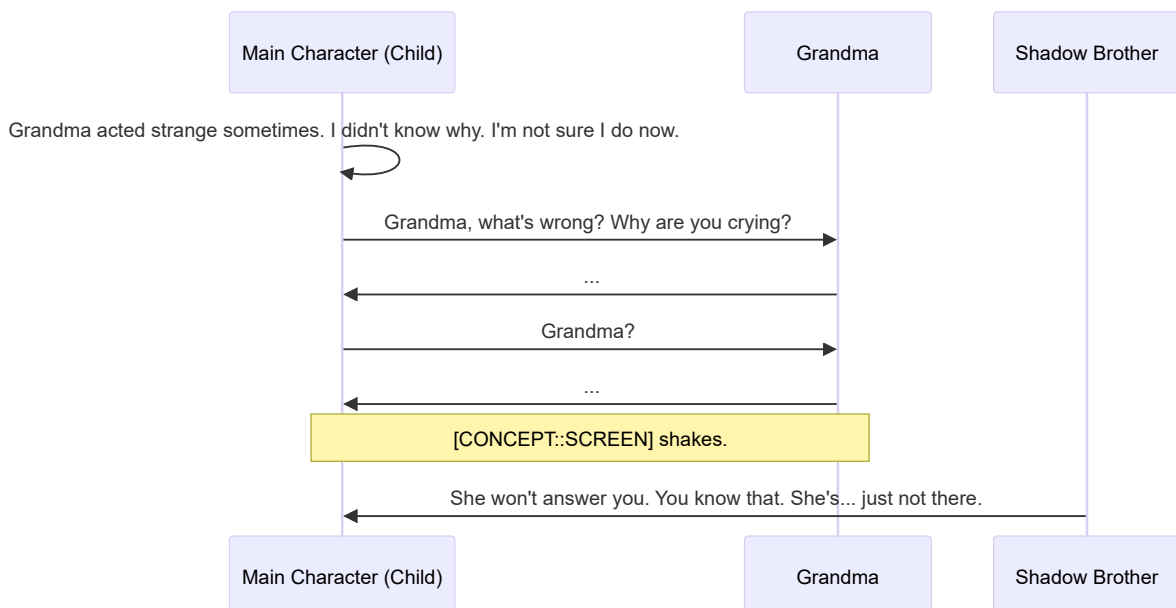
[SEQUENCE::L3_CHILD_I2_INT_SPILLEDICECREAM] Action sequence 2 - Interacting with the spilled ice cream

Concept	Value
Action sequence ID	[SEQUENCE::L3_CHILD_I2_INT_SPILLEDICECREAM]
Events required	[EVENT::L3_CHILD_I1_INT_ICECREAM_GRANDMA_COMPLETED]
Interactions required	[ACTION::INTERACT] => [OBJECT::SPILLEDICECREAM]
Event triggered	[EVENT::L3_CHILD_I2_INT_SPILLEDICECREAM_COMPLETED]
Item pickup	-

```
              Main Character (Child)
                       |
          The ice cream cone...
                       ↺
   I think I was just lucky it was on the floor and not over my head.
                       ↺
         I... don't think she ever got to taste it.
                       ↺
              Main Character (Child)
```
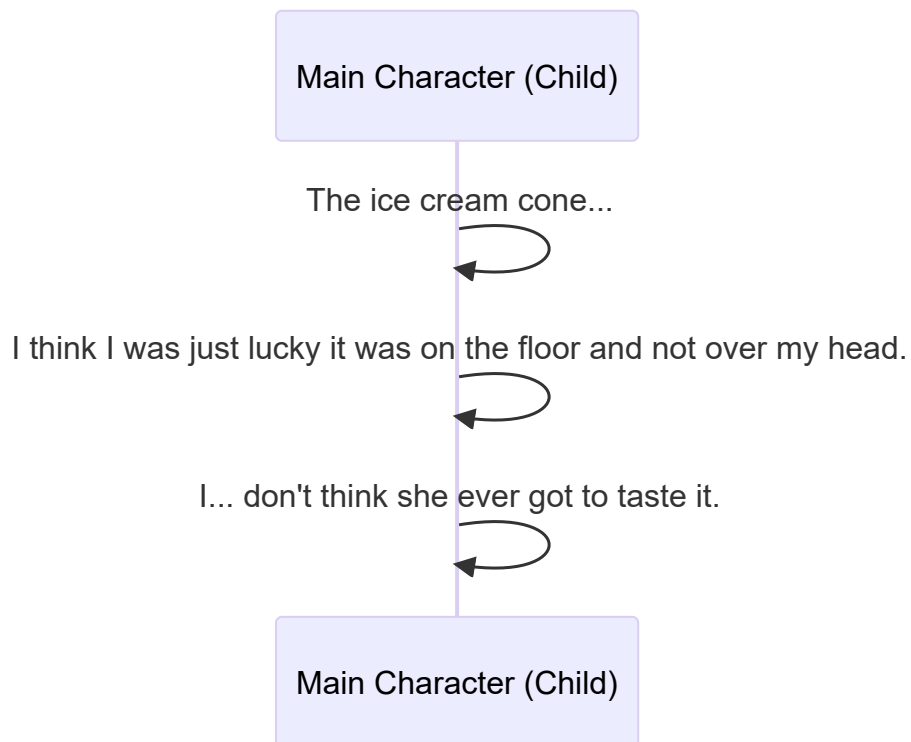
Location 7 - Ice cream parlor : Iteration 3 (Childhood)

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Description

Third iteration of the Ice cream parlor level. The main character's parents are arguing, and his brother is trying to confort him. The player can use the scoop with the brother to trigger the serving ice cream minigame.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::BROTHER]	My big brother. I don't know what I'd have done without him.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::CARINGBROTHER]	When mom and dad fighted, my brother would take a [scoop] and play with me.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::SCOOP] => [SEQUENCE::L3_CHILD_I3_INT_SCOOP_BROTHER]
[CHARACTER::DAD]	Dad. He always knew how to make me laugh.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::DISTRESSEDGRANDMA]	There was something wrong with grandma.	[OBJECT_TYPE::OBSERVABLE]	-	-

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::GRANDMA]	Grandma. She was the heart of our family. And she really liked her [ice cream]!	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::MOM]	Mom. She was the kindest person I've ever known.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::MOM]
[CHARACTER::OLDMANCHILD]	My child self. He was always happy... but he feels sad.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::PARENTSARGUING]	Mom and dad used to argue a lot. I think it was because of grandma.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::VENDOR]	The ice cream vendor. She always had a smile on his face.	[OBJECT_TYPE::OBSERVABLE]	-	-
[ITEM::MOM]	My mom.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::PEOPLE]	-
[ITEM::SCOOP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::CASHREGISTER]	The parlor was always full of people. The register was probably full of money all the time.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FIGURINE]	That's the figurine I have at home.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FLAVORS]	They had the richest variety of flavors in town.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::ICECREAM]	A strawberry and vanilla ice cream cone. It was my grandma's favorite.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::JUKEBOX]	They had the best music playing all the time. It had the best [discs].	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::MENU]	On top of ice creams, they also served waffles, milkshakes, and sundaes.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::SCOOP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::SCOOP]
[OBJECT::SPILLEDICECREAM]	The ice cream cone was on the floor.	[OBJECT_TYPE::OBSWRVABLE]	-	-

Global events

Event	Description
[EVENT::L3_CHILD_I3_INT_SCOOP_BROTHER_COMPLETED]	The player has given the scoop to the brother.

Action sequences

Action sequence ID	Description
[SEQUENCE::L3_CHILD_I3_INT_SCOOP_BROTHER]	Giving the scoop to the brother.

[SEQUENCE::L3_CHILD_I3_INT_SCOOP_BROTHER] Action sequence 1 - Giving the scoop to the brother

Concept	Value
Action sequence ID	[SEQUENCE::L3_CHILD_I3_INT_SCOOP_BROTHER]
Events required	[EVENT::L3_CHILD_I2_INT_DISTRESSEDGRANDMA_COMPLETED], [EVENT::L3_CHILD_I2_INT_SPILLEDICECREAM_COMPLETED]
Interactions required	[ITEM::SCOOP] => [CHARACTER::CARINGBROTHER]
Event triggered	[EVENT::L3_CHILD_I3_INT_SCOOP_BROTHER_COMPLETED]
Item pickup	-

Main Character (Child) | **Brother**

My brother was always there for me. He knew how to make me feel better.

Hey, little bro. What's wrong? Why are you crying?

Mom and dad are fighting again. I don't like it.

I know, I know. It's hard. But we'll get through this together. Here, let me help you.

Thanks, big bro. I love you.

I love you too, little bro. Now, let's serve some ice cream. That always makes you feel better.

[CONCEPT::SCREEN] fades out.

Main Character (Child) | **Brother**

Location 8 - Ice cream parlor : Minigame (Childhood)

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Description

The minigame consists of serving ice cream in the parlor. The player must serve the correct ice cream flavors to progress. Every time the player succeeds, the main character's brother will say something comforting. If the player fails, the parents' argument will intensify. The minigame doesn't end because of the player's performance but because of time passing. There are no objects to interact with in this location.

Brother phrases:

Parents' argument phrases:

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-

Global events

Event	Description
[EVENT::L3_CHILD_MINIGAME_COMPLETED]	The player has completed the minigame.

Action sequences

Action sequence ID	Description
-	-

Location 9 - Ice cream parlor : After minigame (Childhood)

Description

After the minigame, the main character is back in the ice cream parlor. There are no objects to interact with in this location.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[ITEM::FEAR]	I am afraid.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::FEELING]	-

Global events

Event	Description
[EVENT::L3_CHILD_COMPLETED]	The player has completed the ice cream parlor scene during childhood.

Action sequences

Action sequence ID	Description
[SEQUENCE::L3_CHILD_I4_OUTRO]	Outro of the ice cream parlor scene.

[SEQUENCE::L3_CHILD_I4_OUTRO] Action sequence 1 - Outro

Concept	Value
Action sequence ID	[SEQUENCE::L3_CHILD_I4_OUTRO]
Events required	[EVENT::L3_CHILD_MINIGAME_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L3_CHILD_COMPLETED]
Item pickup	[ITEM::FEAR]

The sequence diagram shows interactions between Main Character (Child), Brother, and Vendor:

- [CONCEPT::SCREEN] fades in to the ice cream parlor.
- Main Character (Child) → Brother: That was fun, old brother!
- Brother → Main Character (Child): I'm glad you enjoyed it, little brother. You know, we'll always have each other.
- Main Character (Child): My brother always knew how to make me feel better.
- Vendor → Main Character (Child): Hey, little one. You look like you could use a hug. And maybe an ice cream cone?
- Main Character (Child): The vendor was also there for us. My parents used to fight a lot in there, and she always tried to entertain us.
- Main Character (Child): I don't know why she cared so much, but I'm glad she did.
- Main Character (Child): I also don't know where she is now. I hope she's happy.
- [CONCEPT::SCREEN] shakes.
- Main Character (Child): My parents eventually calmed down. They always did. But I never understood why they fought so much. Not back then, at least.
- Main Character (Child): But that's all in the past now. I just don't know why I forgot about the bad parts until now.
- Main Character (Child): I should go back to the room. Maybe there's something there that can help me understand.
- Main Character (Child): There should also be easier memories there.
- [CONCEPT::SCREEN] fades out.

Location 10 - Graveyard : Cutscene

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Description

A painful memory of the past emerges in the main character's mind. There are no objects to interact with in this location.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-

Global events

Event	Description
[EVENT::L4_NONE_COMPLETED]	The player has completed the graveyard scene.

Action sequences

Action sequence ID	Description
[SEQUENCE::L4_NONE_I1_INTRO]	Introduction to the graveyard scene.

[SEQUENCE::L4_NONE_I1_INTRO] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L4_NONE_I1_INTRO]
Events required	[EVENT::L3_CHILD_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L4_NONE_COMPLETED]
Item pickup	-

```
        Main Character (Old)
                |
  [CONCEPT::SCREEN] fades in to the graveyard.

      No, not this one. It's just too painful.
                ↺
       [CONCEPT::SCREEN] fades out.
                |
        Main Character (Old)
```
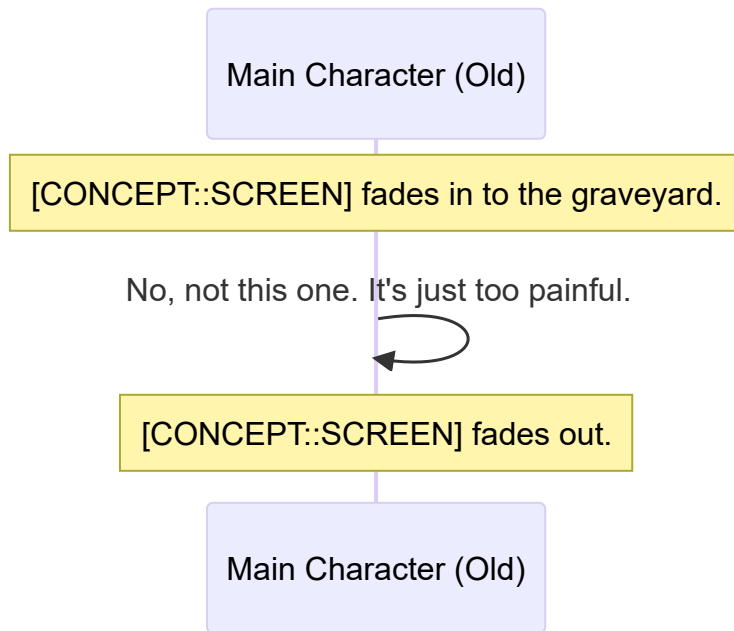
Location 11 - Room : Transition to Street

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Description

The main character returns to the Room level after the graveyard memory. The player can interact with the photo album to enable the street memory.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[ITEM::ROOM_SPRAY]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	• [x] => [OBJECT::ALBUM] => [SEQUENCE::L0_NONE_I2_INT_SPRAY_ALBUM]
[OBJECT::ALBUM]	This album contains the memories of my life.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::ROOM_SPRAY] => [SEQUENCE::L0_NONE_I2_INT_SPRAY_ALBUM]
[OBJECT::ROOM_FIGURINE]	I got this figurine from an ice cream parlor that I used to visit with my family.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::ROOM_SPRAY]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L0_NONE_I2_INT_SPRAY]

Global events

Event	Description
[EVENT::L0_NONE_I2_INTRO_COMPLETED]	The player has completed the introduction to the room after the graveyard memory.
[EVENT::L0_NONE_I2_INT_SPRAY_COMPLETED]	The player has interacted with the spray.
[EVENT::L0_NONE_I2_INT_SPRAY_ALBUM_COMPLETED]	The player has used the spray on the photo album.

Action sequences

Action sequence ID	Description
[SEQUENCE::L0_NONE_I2_INTRO]	Introduction to the room after the graveyard memory.
[SEQUENCE::L0_NONE_I2_INT_SPRAY]	Picking up the spray.
[SEQUENCE::L0_NONE_I2_INT_SPRAY_ALBUM]	Using the spray on the photo album.

[SEQUENCE::L0_NONE_I2_INTRO] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I2_INTRO]
Events required	[EVENT::L4_NONE_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L0_NONE_I2_INTRO_COMPLETED]
Item pickup	-

Main Character (Old)

I need to avoid that memory. I don't think I can handle it right now.

The album should have plenty of good ones.

[OBJECT::ROOM_SPRAY] fades in.

Main Character (Old)
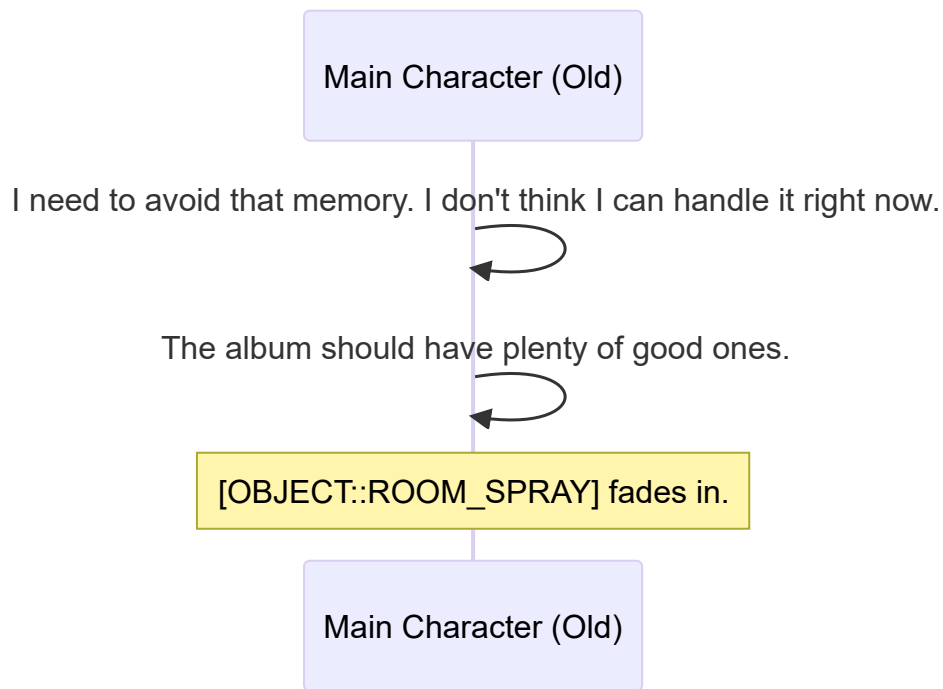
[SEQUENCE::L0_NONE_I2_INT_SPRAY] Action sequence 1 - Picking up the spray

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I2_INT_SPRAY]
Events required	[EVENT::L4_NONE_COMPLETED]
Interactions required	[ACTION::INTERACT] => [OBJECT::ROOM_SPRAY]
Event triggered	[EVENT::L0_NONE_I2_INT_SPRAY_COMPLETED]
Item pickup	[ITEM::ROOM_SPRAY]

Main Character (Old)

I was not the best kid growing up. I used to draw graffiti on the walls of the street when I was a teenager.

This spray is not from back them, of course, but it reminds me of those days.

I should have a photo of my old street in the album.

Main Character (Old)
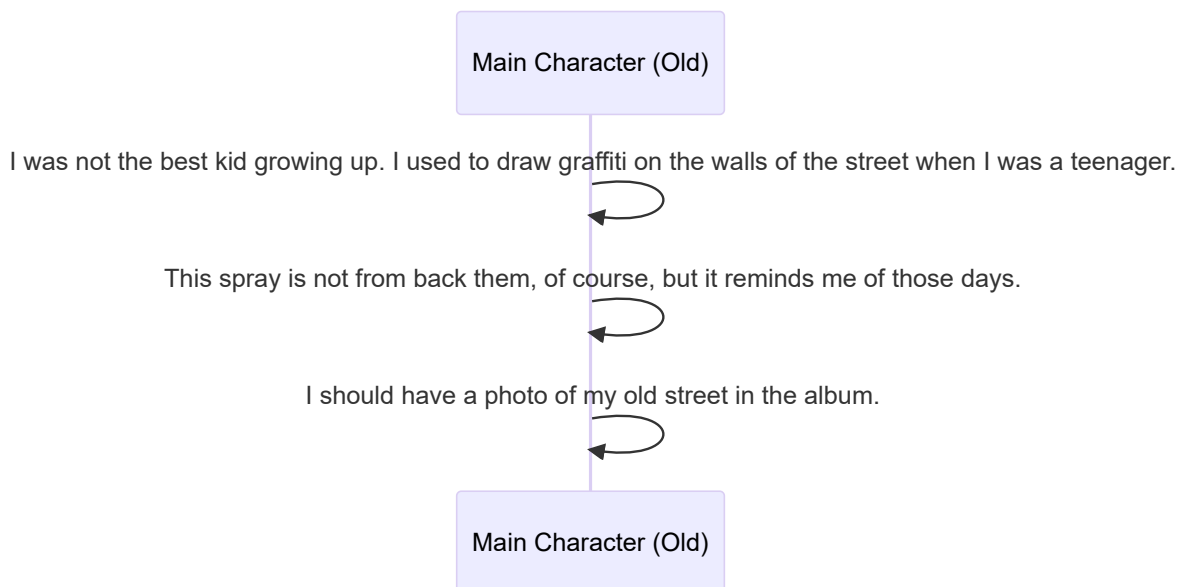
[SEQUENCE::L0_NONE_I2_INT_SPRAY_ALBUM] Action sequence 2 - Using the spray on the photo album

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I2_INT_SPRAY_ALBUM]
Events required	[EVENT::L0_NONE_I2_INT_SPRAY_COMPLETED]
Interactions required	[ITEM::ROOM_SPRAY] => [OBJECT::ALBUM]
Event triggered	[EVENT::L0_NONE_I2_INT_SPRAY_ALBUM_COMPLETED]
Item pickup	-

Main Character (Old)

Yes, it should be here somewhere.
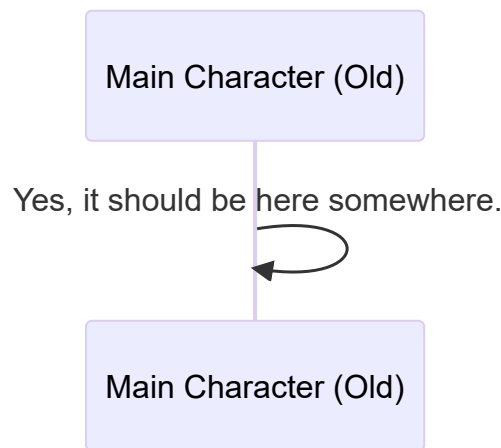
Main Character (Old)

Location 12 - Street : Iteration 1 (Adolescence)

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Description

First visit to the Street level. The main character, as a teenager, is walking alone in the street with a somber expression.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[ITEM::BANKRUPTCY]	The country was going through a financial crisis. Many businesses went bankrupt.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::EVENT]	-
[ITEM::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::BRICK]
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::BANKRUPTCY]
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::BANKRUPTCY] => [SEQUENCE::L5_ADOLESCENCE_I1_INT_BANKRUPTCY_PIZZAPARLORSIGN]
[OBJECT::WORKSITE]	The street has been under construction for years.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L5_ADOLESCENCE_I1_INTRO_COMPLETED]	The player has completed the introduction to the street scene during adolescence.
[EVENT:L5_ADOLESCENCE_I1_BANKRUPTCY_PIZZAPARLORSIGN_COMPLETED]	The player has used the bankruptcy on the pizza parlor.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_ADOLESCENCE_I1_INTRO]	Introduction to the street scene during adolescence.
[SEQUENCE::L5_ADOLESCENCE_I1_INT_BANKRUPTCY_PIZZAPARLORSIGN]	Using the bankruptcy on the pizza parlor.

[SEQUENCE::L5_ADOLESCENCE_I1_INTRO] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L5_ADOLESCENCE_I1_INTRO]
Events required	[EVENT::L0_NONE_I2_INT_SPRAY_ALBUM_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L5_ADOLESCENCE_I1_INTRO_COMPLETED]
Item pickup	-

```
Main Character (Teenager)                                    Shadow Adult Self

                    [CONCEPT::SCREEN] fades in to the street.

    I remember this place. I used to walk here all the time.
                                    ↰

    I was kind of the outcast growing up. I didn't want any friends. I didn't need any.
                                    ↰

    I thought I was better than them. I thought I was smarter. I thought I was... special.
                                    ↰

Looking at it now, I was a fool. I was just a kid, and I probably was just lost. Maybe I still am.
                                    ↰

                              [CONCEPT::SCREEN] shakes.

          You're not lost. You're useless. You're a failure. You're nothing.
                                    ←

                              Again? Who are you?
                                    →

        Gone. What is happening?
                                    ↰

    I should look around. Let's see what I can forget about this place.
                                    ↰

Main Character (Teenager)                                    Shadow Adult Self
```

[SEQUENCE::L5_ADOLESCENCE_I1_INT_BANKRUPTCY_PIZZAPARLORSIGN] Action sequence 2 - Using the bankruptcy on the pizza parlor

Concept	Description
Action sequence ID	[SEQUENCE::L5_ADOLESCENCE_I1_INT_BANKRUPTCY_PIZZAPARLORSIGN]
Events required	[EVENT::L5_ADOLESCENCE_I1_INTRO_COMPLETED]
Interactions required	[ITEM::BANKRUPTCY] => [OBJECT::PIZZAPARLORSIGN]
Event triggered	[EVENT::L5_ADOLESCENCE_I1_BANKRUPTCY_PIZZAPARLORSIGN_COMPLETED]
Item pickup	-

```mermaid
Main Character (Teenager)

The situation of the country didn't help. Many businesses went bankrupt. Moral was low.

The pizza parlor opened when I was a kid, but it didn't last long. It closed down during the financial crisis, just weeks after... after what happened.

People lost their jobs. Families lost their homes.

No one had the time or the energy to care about a wandering teenager. Maybe that's why I started to wreak havoc.

Main Character (Teenager)
```

Location 13 - Street : Iteration 2 (Adolescence)

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Description

Second iteration of the Street level. The main character is looking at a graffiti he made on the wall.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::NEIGHBORS]	Neighbors didn't like me. They thought I was a troublemaker.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANTEEN]	My adolescent self. He only thought about [graffiti] and [music].	[OBJECT_TYPE::OBSERVABLE]	-	-
[ITEM::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::BRICK]
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::GRAFFITI]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L5_ADOLESCENCE_I2_INT_GRAFFITI]
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::WORKSITE]	The street has been under construction for years.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L5_ADOLESCENCE_I2_INT_GRAFFITI_COMPLETED]	The player has interacted with the graffiti.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_ADOLESCENCE_I2_INT_GRAFFITI]	Interacting with the graffiti.

[SEQUENCE::L5_ADOLESCENCE_I2_INT_GRAFFITI] Action sequence 1 - Interacting with the graffiti

Concept	Description
Action sequence ID	[SEQUENCE::L5_ADOLESCENCE_I2_INT_GRAFFITI]
Events required	[EVENT::L5_ADOLESCENCE_I1_INTRO_COMPLETED]
Interactions required	[ACTION::INTERACT] => [OBJECT::GRAFFITI]
Event triggered	[EVENT::L5_ADOLESCENCE_I2_INT_GRAFFITI_COMPLETED]
Item pickup	-
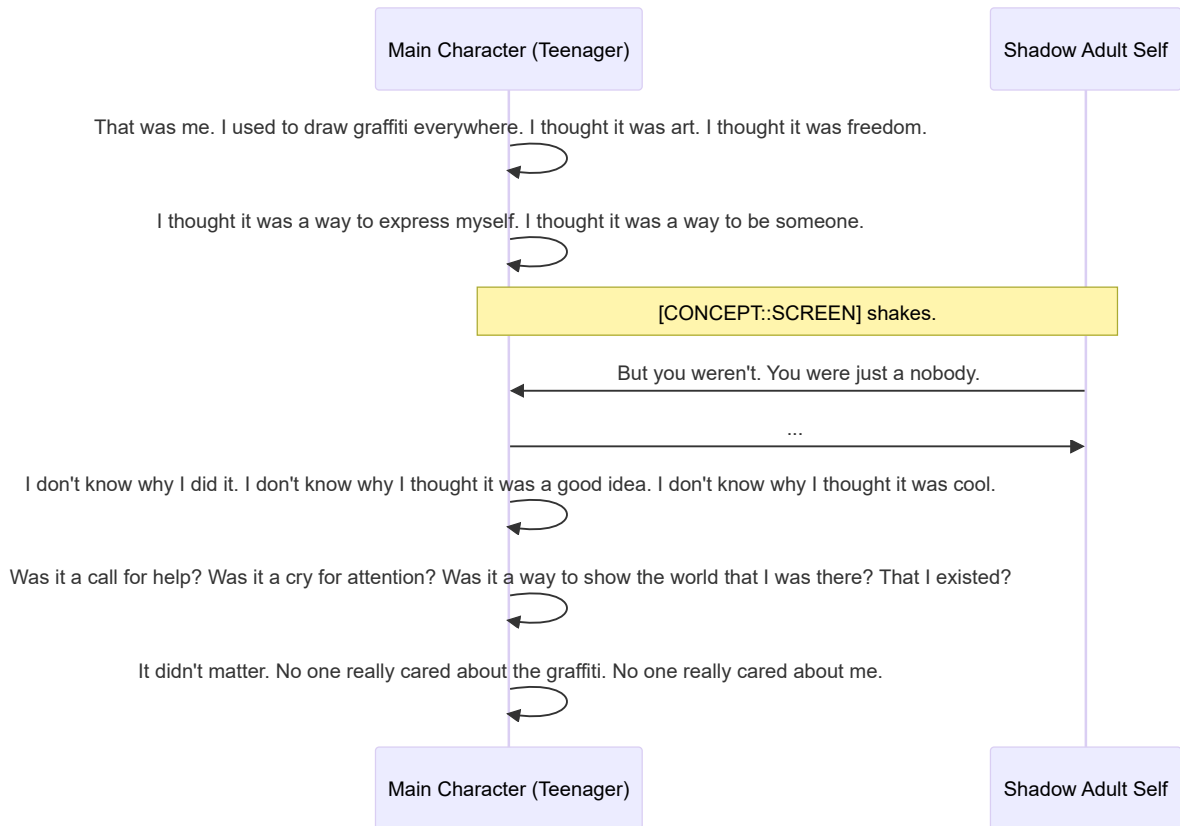
Location 14 - Street : Iteration 3 (Adolescence)

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Description

Third iteration of the Street level. The police have arrived.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::NEIGHBORS]	Neighbors didn't like me. They thought I was a troublemaker.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANTEEN]	My adolescent self. He only thought about [graffiti] and [music].	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::POLICEWOMAN]	The police officer was empathetic but firm.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L5_ADOLESCENCE_I3_INT_POLICEWOMAN]
[ITEM::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::BRICK]
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::GRAFFITI]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::WORKSITE]	The street has been under construction for years.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L5_ADOLESCENCE_I3_INT_POLICEWOMAN_COMPLETED]	The player has interacted with the police.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_ADOLESCENCE_I3_INT_POLICEWOMAN]	Interacting with the police.

[SEQUENCE::L5_ADOLESCENCE_I3_INT_POLICEWOMAN] Action sequence 1 - Interacting with the police

Concept	Description
Action sequence ID	[SEQUENCE::L5_ADOLESCENCE_I3_INT_POLICEWOMAN]
Events required	[EVENT::L5_ADOLESCENCE_I2_INT_GRAFFITI_COMPLETED]
Interactions required	[ACTION::INTERACT] => [CHARACTER::POLICEWOMAN]
Event triggered	[EVENT::L5_ADOLESCENCE_I3_INT_POLICEWOMAN_COMPLETED]
Item pickup	-

Main Character (Teenager)   Officer   Shadow Adult Self

The police was always patrolling the streets. They didn't like a criminal in the making wandering around.

[CONCEPT::SCREEN] shakes.

You were a menace to everyone. You were a waste of space.

...

You again, kid? How many times do we need to have this conversation?

Wait. I didn't remember her. She looks exactly like...

Have we met before? You look familiar.

You mean the dozens of times I've caught you drawing on the walls?

No, I mean... It doesn't matter. Leave me alone.

You know I can't do that. Come on, why are you always doing this? You're better than this. I know you are.

[CONCEPT::SCREEN] shakes.

You're not better than this. You're not better than anything.

...

I'm not going to arrest you. I don't think that'll do you any good. But you need to stop. You're young. You have your whole life ahead of you. Don't waste it.

I don't know why she cared. I don't know why she tried to help me. I don't know why she thought I was worth it.

I don't know why I didn't listen. I don't know why I didn't care. I don't know why I didn't stop.

Main Character (Teenager)   Officer   Shadow Adult Self

Location 15 - Street : Iteration 4 (Adolescence)

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Description

Fourth iteration of the Street level. The police car is shown.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::NEIGHBORS]	Neighbors didn't like me. They thought I was a troublemaker.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANTEEN]	My adolescent self. He only thought about [graffiti] and [music].	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::POLICEWOMAN]	The police officer was empathetic but firm.	[OBJECT_TYPE::OBSERVABLE]	-	-
[ITEM::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	• [x] => [OBJECT::POLICECAR] => [SEQUENCE::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR]
[OBJECT::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::BRICK]
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::GRAFFITI]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::POLICECAR]	I hated the police. I always thought of [smashing] their cars.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::BRICK] => [SEQUENCE::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR]
[OBJECT::WORKSITE]	The street has been under construction for years.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR_COMPLETED]	The player has used the brick on the police car.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR]	Using the brick on the police car.

[SEQUENCE::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR] Action sequence 2 - Using the brick on the police car

Concept	Description
Action sequence ID	[SEQUENCE::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR]
Events required	[EVENT::L5_ADOLESCENCE_I3_INT_POLICEWOMAN_COMPLETED]
Interactions required	[ITEM::BRICK] => [OBJECT::POLICECAR]
Event triggered	[EVENT::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR_COMPLETED]
Item pickup	-
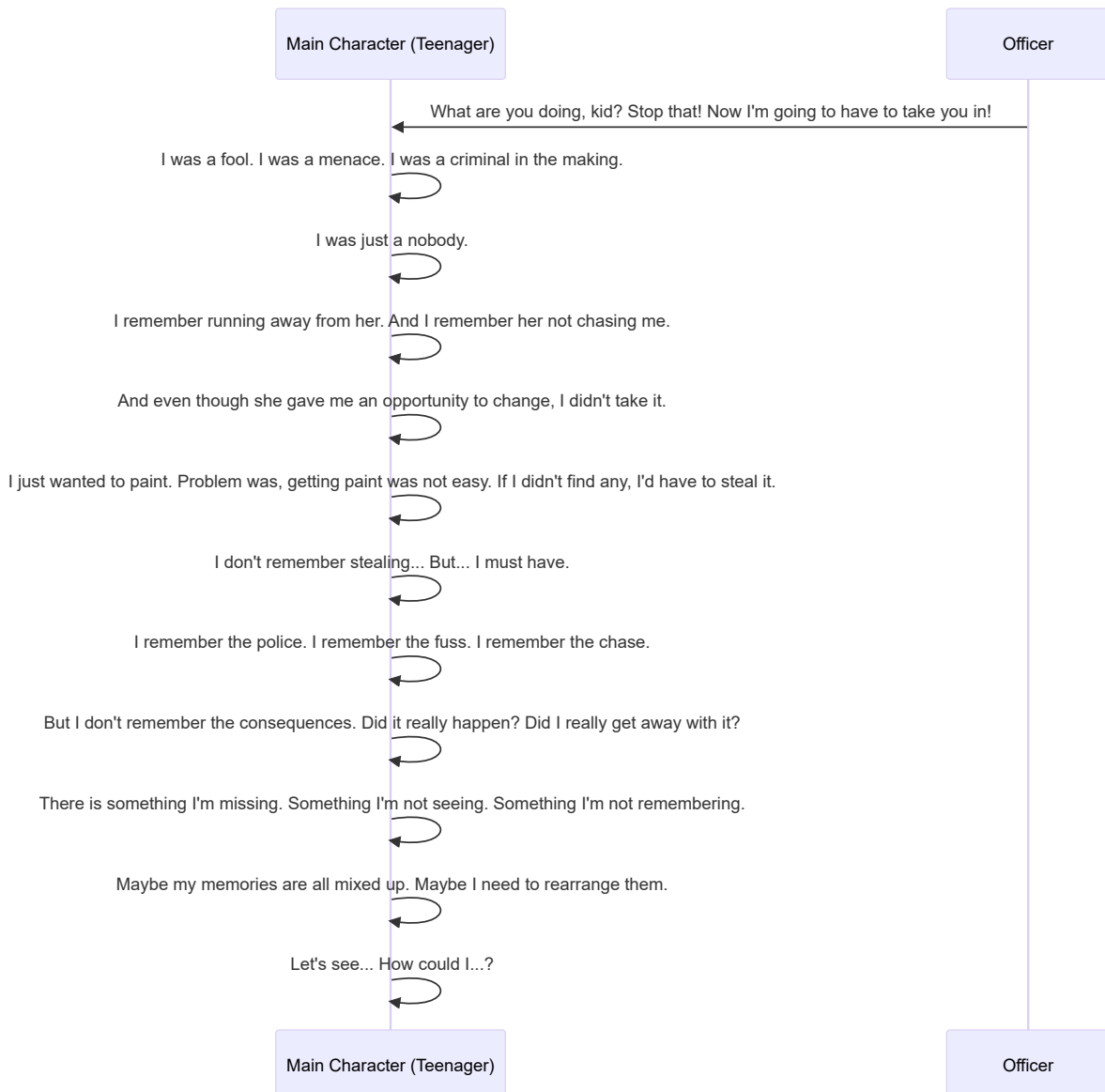
Location 16 - Tutorial : Switching age / free roam group tutorial

Description

A tutorial on how to switch scenes between the different ages of the main character. The player can drag photos in the album to rearrange and free roam between the different memories.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-

Global events

Event	Description
[EVENT::L1_NONE_I2_TUTORIAL_SWITCHAGES_COMPLETED]	The player has completed the tutorial on switching ages.

Action sequences

Action sequence ID	Description
[SEQUENCE::L1_NONE_I2_TUTORIAL_SWITCHAGES]	Tutorial on switching ages.

[SEQUENCE::L1_NONE_I2_TUTORIAL_SWITCHAGES] Action sequence 1 - Tutorial on switching ages

Concept	Description
Action sequence ID	[SEQUENCE::L1_NONE_I2_TUTORIAL_SWITCHAGES]
Events required	[EVENT::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L1_NONE_I2_TUTORIAL_SWITCHAGES_COMPLETED]
Item pickup	-

Main Character (Old) → **IT Support**: Young one! Can you help me with this?

IT Support → **Main Character (Old)**: Sure thing, mister. When looking at the album, you can [ACTION::DRAG] the photos around to rearrange them.

Main Character (Old) → **IT Support**: But... How can I go back to the album?

IT Support → **Main Character (Old)**: Oh, that's easy. An icon will appear on the top left corner. Just [ACTION::CLICK] on it.

Main Character (Old) → **IT Support**: Oh, I see. It was indeed easy. Thank you, dear.

Location 17a - Ice cream parlor : Free roam (Childhood)

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Description

The ice cream parlor level as it was left after the first visit.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-
[CHARACTER::BROTHER]	My big brother. I don't know what I'd have done without him.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::CARINGBROTHER]	When mom and dad fighted, my brother would take a [scoop] and play with me.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::DAD]	Dad. He always knew how to make me laugh.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::DISTRESSEDGRANDMA]	There was something wrong with grandma.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::GRANDMA]	Grandma. She was the heart of our family. And she really liked her [ice cream]!	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::MOM]	Mom. She was the kindest person I've ever known.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::MOM]
[CHARACTER::OLDMANCHILD]	My child self. He was always happy... but he feels sad.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::PARENTSARGUING]	Mom and dad used to argue a lot. I think it was because of grandma.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::VENDOR]	The ice cream vendor. She always had a smile on his face.	[OBJECT_TYPE::OBSERVABLE]	-	-
[ITEM::MOM]	My mom.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::PEOPLE]	-
[ITEM::PIZZAPARLOR]	The pizza parlor was the best place in town.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::PLACE]	-
[OBJECT::CASHREGISTER]	The parlor was always full of people. The register was probably full of money all the time.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FIGURINE]	That's the figurine I have at home.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FLAVORS]	They had the richest variety of flavors in town.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::ICECREAM]	A strawberry and vanilla ice cream cone. It was my grandma's favorite.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::JUKEBOX]	They had the best music playing all the time. It had the best [discs].	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::MENU]	On top of ice creams, they also served waffles, milkshakes, and sundaes.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::POSTER]	A poster of a new pizza place that opened nearby.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L3_CHILD_ROAM1_INT_POSTER]

Object	Description	Object type	Pickable type	Uses / Interactions
[OBJECT::SCOOP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::SPILLEDICECREAM]	The ice cream cone was on the floor.	[OBJECT_TYPE::OBSWRVABLE]	-	-

Global events

Event	Description
[EVENT::L3_CHILD_ROAM1_INT_POSTER_COMPLETED]	The player has interacted with the poster.

Action sequences

Action sequence ID	Description
[SEQUENCE::L3_CHILD_ROAM1_INT_POSTER]	Interacting with the poster.

[SEQUENCE::L3_CHILD_ROAM1_INT_POSTER] Action sequence 1 - Interacting with the poster

Concept	Description
Action sequence ID	[SEQUENCE::L3_CHILD_ROAM1_INT_POSTER]
Events required	[EVENT::L1_NONE_I2_TUTORIAL_SWITCHAGES_COMPLETED]
Interactions required	[ACTION::INTERACT] => [OBJECT::POSTER]
Event triggered	[EVENT::L3_CHILD_ROAM1_INT_POSTER_COMPLETED]
Item pickup	[ITEM::PIZZAPARLOR]
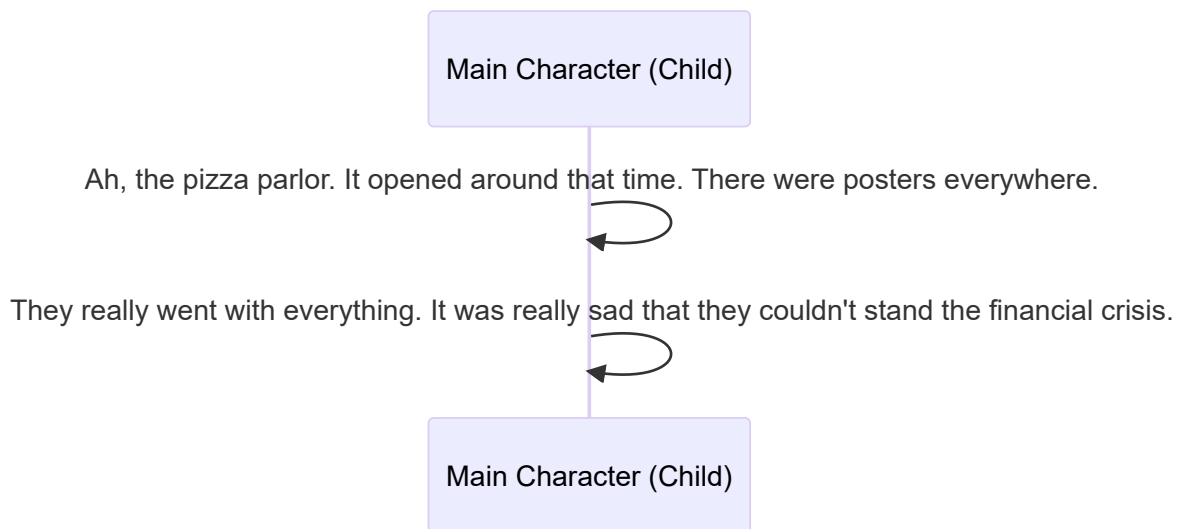
Main Character (Child)

Ah, the pizza parlor. It opened around that time. There were posters everywhere.

They really went with everything. It was really sad that they couldn't stand the financial crisis.

Main Character (Child)

Location 17b - Ice cream parlor : Free roam (Adolescence)

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Description

The ice cream parlor but with the main character as a teenager. The main character is eating alone in a corner. His old friends are standing at the counter, but they don't notice him.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::FRIENDS]	My old friends were standing at the counter. They didn't notice me.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::NEWVENDOR]	The new proprietor of the ice cream parlor. She was really excited about the [opening].	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::OPENING] => [SEQUENCE::L3_ADOLESCENCE_ROAM1_INT_OPENING_NEWVENDOR]
[ITEM::SPRAY]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::ARCADE]	They replaced the jukebox with an arcade machine. I didn't have any [money] to play.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::CASHREGISTER]	The parlor was always full of people. The register was probably full of money all the time.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FIGURINE]	That's the figurine I have at home.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FLAVORS]	They had the richest variety of flavors in town.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::MENU]	On top of ice creams, they also served waffles, milkshakes, and sundaes.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L3_ADOLESCENCE_ROAM1_INT_OPENING_NEWVENDOR_COMPLETED]	The player has interacted used the opening on the new vendor.

Action sequences

Action sequence ID	Description
[SEQUENCE::L3_ADOLESCENCE_ROAM1_INT_OPENING_NEWVENDOR]	Using the opening on the new vendor.

[SEQUENCE::L3_ADOLESCENCE_ROAM1_INT_OPENING_NEWVENDOR] Action sequence 1 - Using the opening on the new vendor

Concept	Description
Action sequence ID	[SEQUENCE::L3_ADOLESCENCE_ROAM1_INT_OPENING_NEWVENDOR]
Events required	[EVENT::L1_NONE_I2_TUTORIAL_SWITCHAGES_COMPLETED]
Interactions required	[ITEM::OPENING] => [ITEM::NEWVENDOR]
Event triggered	[EVENT::L3_ADOLESCENCE_ROAM1_INT_OPENING_NEWVENDOR_COMPLETED]
Item pickup	[ITEM::SPRAY]
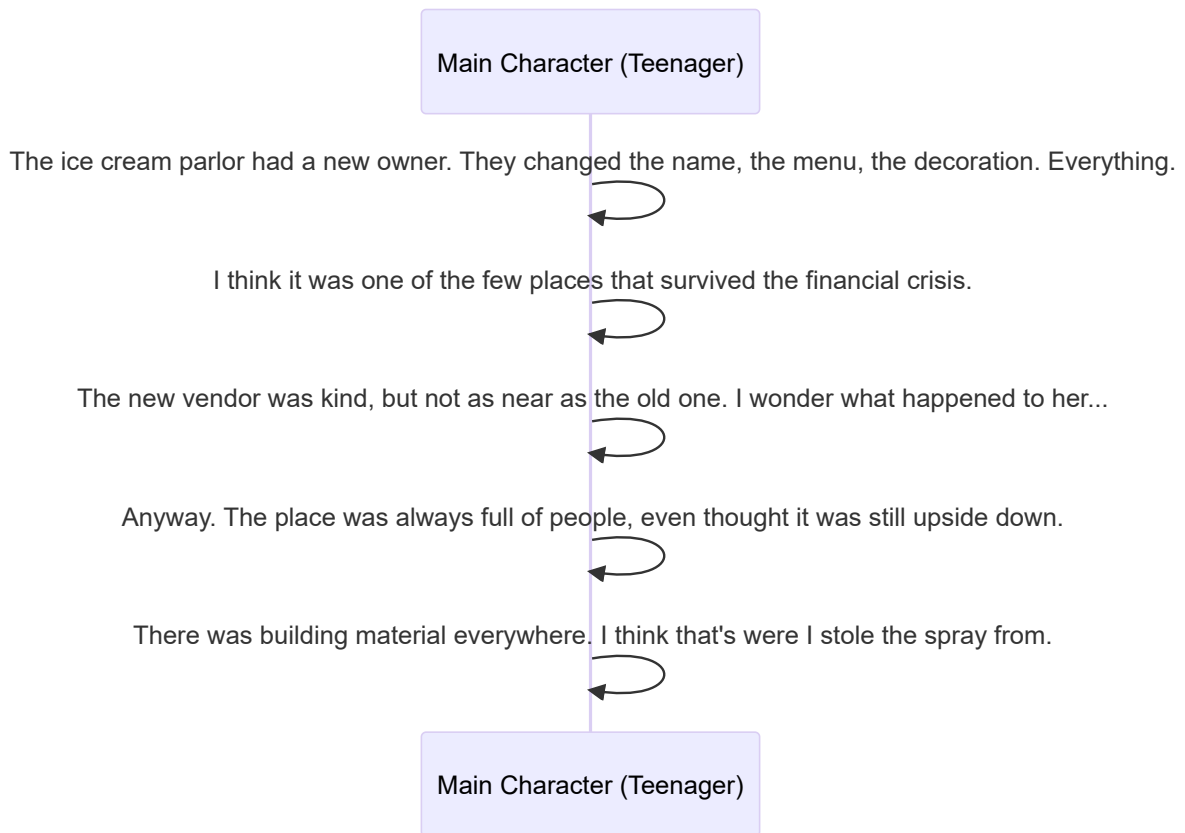
Main Character (Teenager)

The ice cream parlor had a new owner. They changed the name, the menu, the decoration. Everything.

I think it was one of the few places that survived the financial crisis.

The new vendor was kind, but not as near as the old one. I wonder what happened to her...

Anyway. The place was always full of people, even thought it was still upside down.

There was building material everywhere. I think that's were I stole the spray from.

Main Character (Teenager)

Location 17c - Street : Free roam (Childhood)

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Description

The street level but with the main character as a child. The main character is painting with a chalk on the sidewalk.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::OLDMANCHILD]	My child self. He loved [drawing]. He always welcomed any inspiration.	[OBJECT_TYPE::OBSERVABLE]	-	-
[ITEM::OPENING]	The pizza parlor threw a big party on the opening day.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::EVENT]	-
[OBJECT::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::PIZZAPARLOR] => [SEQUENCE::L5_CHILD_ROAM1_INT_PIZZAPARLOR_PIZZAPARLORSIGN]
[OBJECT::WORKSITE]	The street has been under construction for years.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L5_CHILD_ROAM1_INT_PIZZAPARLOR_PIZZAPARLORSIGN_COMPLETED]	The player has used the pizza parlor on the sign.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_CHILD_ROAM1_INT_PIZZAPARLOR_PIZZAPARLORSIGN]	Using the pizza parlor on the sign.

[SEQUENCE::L5_CHILD_ROAM1_INT_PIZZAPARLOR_PIZZAPARLORSIGN] Action sequence 1 - Using the pizza parlor on the sign

Concept	Description
Action sequence ID	[SEQUENCE::L5_CHILD_ROAM1_INT_PIZZAPARLOR_PIZZAPARLORSIGN]
Events required	[EVENT::L1_NONE_I2_TUTORIAL_SWITCHAGES_COMPLETED]
Interactions required	[ITEM::PIZZAPARLOR] => [OBJECT::PIZZAPARLORSIGN]
Event triggered	[EVENT::L5_CHILD_ROAM1_INT_PIZZAPARLOR_PIZZAPARLORSIGN_COMPLETED]
Item pickup	[ITEM::OPENING]

Main Character (Child)

The pizza parlor was the best place in town. It opened around that time.

I remember the pizza. It was the best I ever had. They also had ice cream, but it wasn't as good as the one from the ice cream parlor.

There was always a line to get in. Especially the day of the opening. I remember the line going around the block.

Main Character (Child)

Location 17d - Street : Free roam (Adolescence)

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Description

The street level as it was left after the first visit.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::NEIGHBORS]	Neighbors didn't like me. They thought I was a troublemaker.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANTEEN]	My adolescent self. He only thought about [graffiti] and [music].	[OBJECT_TYPE::OBSERVABLE]	-	• [ITEM::SPRAY] => [SEQUENCE::L5_ADOLESCENCE_ROAM1_INT_SPRAY_OLDMANTEEN]
[CHARACTER::POLICEWOMAN]	The police officer was empathetic but firm.	[OBJECT_TYPE::OBSERVABLE]	-	-
[ITEM::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::GRAFFITI]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::OBSERVABLE]	-	-

Object	Description	Object type	Pickable type	Uses / Interactions
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::POLICECAR]	I hated the police. I always thought of [smashing] their cars.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::BRICK] => [SEQUENCE::L5_ADOLESCENCE_I4_INT_BRICK_POLICECAR]
[OBJECT::WORKSITE]	The street has been under construction for years.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L5_ADOLESCENCE_ROAM1_INT_SPRAY_OLDMANTEEN_COMPLETED]	The player has used the spray on the teenager.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_ADOLESCENCE_ROAM1_INT_SPRAY_OLDMANTEEN]	Using the spray on the teenager.

[SEQUENCE::L5_ADOLESCENCE_ROAM1_INT_SPRAY_OLDMANTEEN] Action sequence 1 - Using the spray on the teenager

Concept	Description
Action sequence ID	[SEQUENCE::L5_ADOLESCENCE_ROAM1_INT_SPRAY_OLDMANTEEN]
Events required	[EVENT::L1_NONE_I2_TUTORIAL_SWITCHAGES_COMPLETED]
Interactions required	[ITEM::SPRAY] => [CHARACTER::OLDMANTEEN]
Event triggered	[EVENT::L5_ADOLESCENCE_ROAM1_INT_SPRAY_OLDMANTEEN_COMPLETED]
Item pickup	-

Main Character (Teenager)

I eventually got the paint. I don't know if I really stole it, but somehow I always got it.

If I found a wall, I wouldn't lose the opportunity. I would paint something. Anything.

And I would find a way to piss off the police.

Main Character (Teenager)
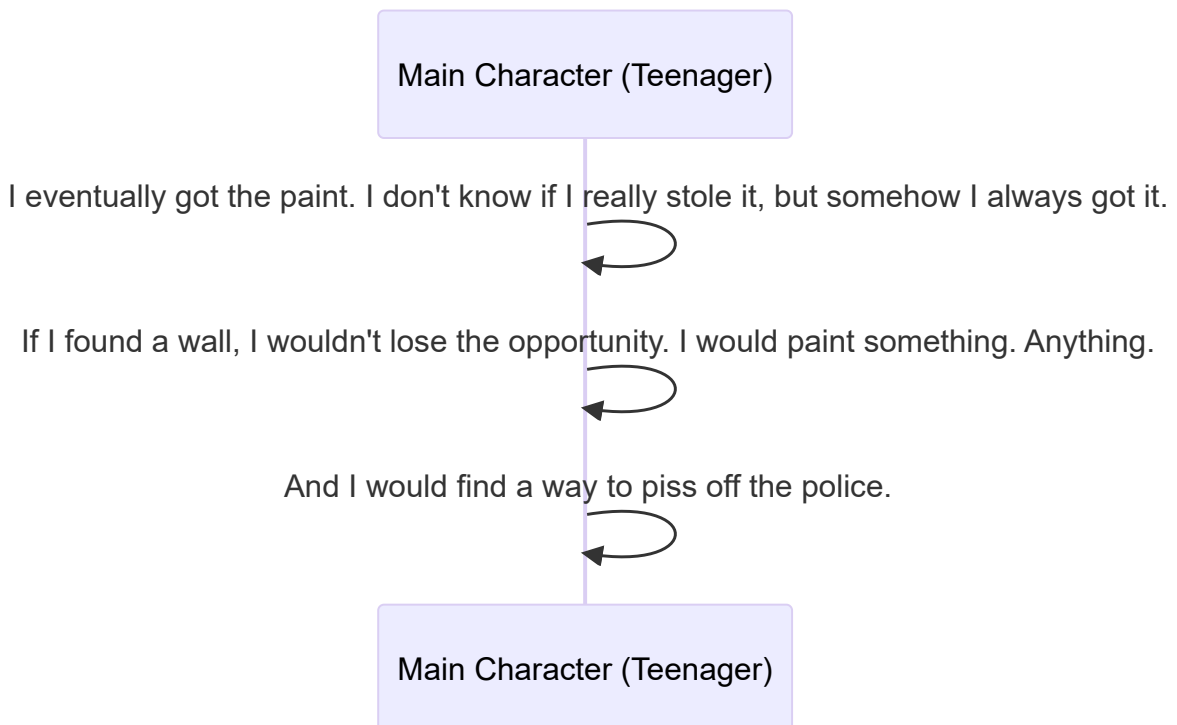
Location 18 - Street : Minigame (Adolescence)

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Description

The minigame consists of painting graffiti on the walls of the street while avoiding the police. The player must paint as many graffiti as possible. Every time the player succeeds, the main character will say something cheeky to the police. If the player fails, a mysterious figure tells him that he's not worth, or good enough, or something similar. The minigame doesn't end because of the player's performance but because of time passing. There are no objects to interact with in this location.

Main character phrases:

Mysterious figure phrases:

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-

Global events

Event	Description
[EVENT::L5_ADOLESCENCE_MINIGAME_COMPLETED]	The player has completed the minigame.

Action sequences

Action sequence ID	Description
-	-

Location 19 - Street : After minigame (Adolescence)

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Description

After the minigame, the main character is caught by the police. There are no objects to interact with in this location.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[ITEM::ANGER]	I am angry.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::FEELING]	-

Global events

Event	Description
[EVENT::L5_ADOLESCENCE_COMPLETED]	The player has completed the minigame.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_ADOLESCENCE_I5_OUTRO]	Outro of the street scene during adolescence.

[SEQUENCE::L5_ADOLESCENCE_I5_OUTRO] Action sequence 1 - Outro

Concept	Description
Action sequence ID	[SEQUENCE::L5_ADOLESCENCE_I5_OUTRO]
Events required	[EVENT::L5_ADOLESCENCE_MINIGAME_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L5_ADOLESCENCE_COMPLETED]
Item pickup	[ITEM::ANGER]
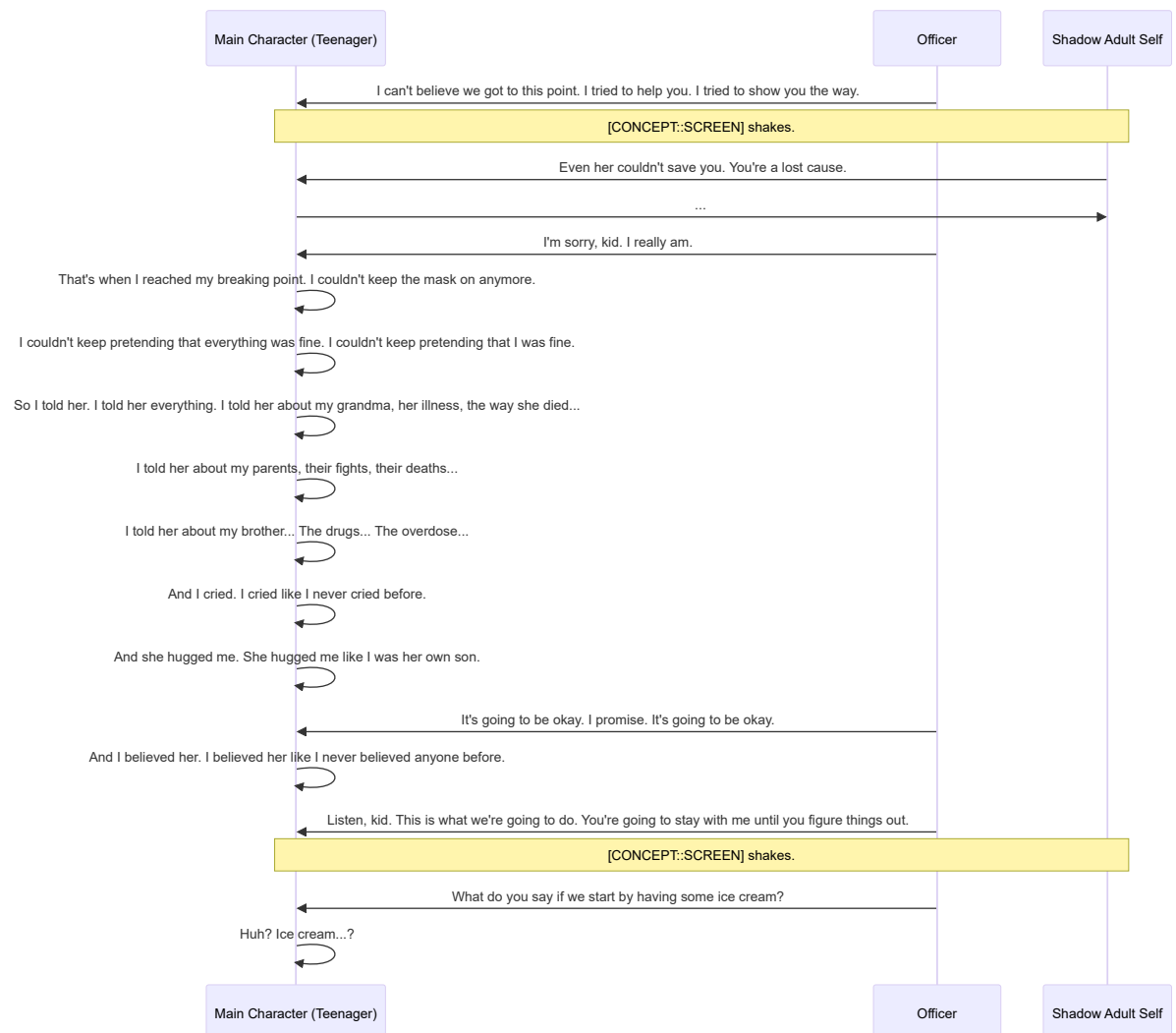
Location 20 - Room : Transition to park

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Description

The main character returns to the Room level after the street memory. The player can interact with the photo album to enable the park memory.

Objects

New objects

Object	Description	Object type	Pickable type	Uses / Interactions
[ITEM::ROOM_KITE]	This kite belonged to my daughter. We used to fly it in the park.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	• [x] => [OBJECT::ALBUM] => [SEQUENCE::L0_NONE_I3_INT_KITE_ALBUM]
[OBJECT::ALBUM]	This album contains the memories of my life.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::ROOM_KITE] => [SEQUENCE::L0_NONE_I3_INT_KITE_ALBUM]
[OBJECT::ROOM_FIGURINE]	I got this figurine from an ice cream parlor that I used to visit with my family.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::ROOM_KITE]	This kite belonged to my daughter. We used to fly it in the park.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L0_NONE_I3_INT_KITE]
[OBJECT::ROOM_SPRAY]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L0_NONE_I3_INTRO_COMPLETED]	The player has completed the street memory.
[EVENT::L0_NONE_I3_INT_KITE_COMPLETED]	The player has interacted with the kite.
[EVENT::L0_NONE_I3_INT_KITE_ALBUM_COMPLETED]	The player has used the kite on the photo album.

Action sequences

Action sequence ID	Description
[SEQUENCE::L0_NONE_I3_INTRO]	Immediately after the street memory.
[SEQUENCE::L0_NONE_I3_INT_KITE]	Picking up the kite.
[SEQUENCE::L0_NONE_I3_INT_KITE_ALBUM]	Using the kite on the photo album.

[SEQUENCE::L0_NONE_I3_INTRO] Action sequence 1 - Immediately after the street memory

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I3_INTRO]
Events required	[EVENT::L5_ADOLESCENCE_COMPLETED]

Concept	Description
Interactions required	-
Event triggered	[EVENT::L0_NONE_I3_INTRO_COMPLETED]
Item pickup	-

Main Character (Old)

...

Did that really happen? Did I go with her?

And why would she look like...?

I can't seem to find the piece I'm missing.

Main Character (Old)
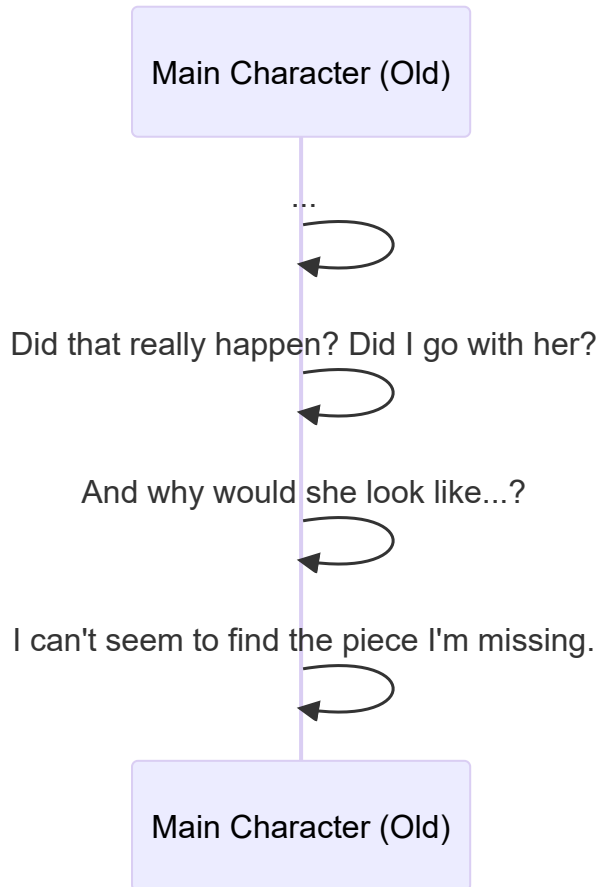
[SEQUENCE::L0_NONE_I3_INT_KITE] Action sequence 1 - Picking up the kite

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I3_INT_KITE]
Events required	[EVENT::L0_NONE_I3_INTRO_COMPLETED]
Interactions required	[ACTION::INTERACT] => [OBJECT::ROOM_KITE]
Event triggered	[EVENT::L0_NONE_I3_INT_KITE_COMPLETED]
Item pickup	[ITEM::ROOM_KITE]

Main Character (Old)

That kite belonged to my daughter. We used to fly it in the park.

She's all grown up now. I wonder if she still remembers those days.

I should have a photo of our visits to the park in the album.

Main Character (Old)
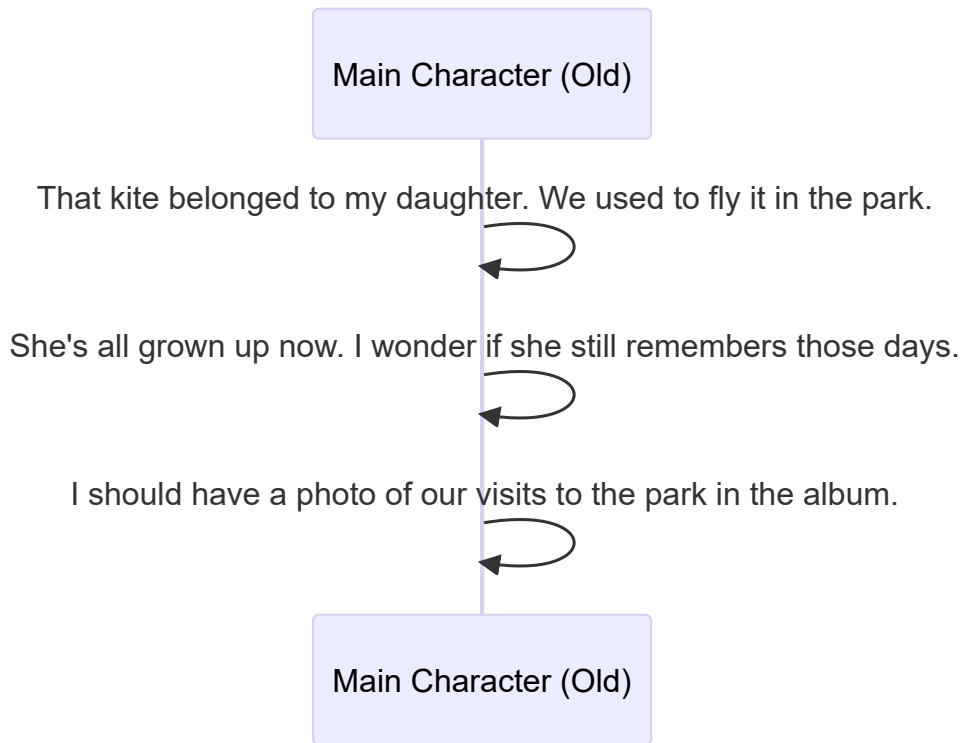
[SEQUENCE::L0_NONE_I3_INT_KITE_ALBUM] Action sequence 2 - Using the kite on the photo album

Concept	Description
Action sequence ID	[SEQUENCE::L0_NONE_I3_INT_KITE_ALBUM]
Events required	[EVENT::L0_NONE_I3_INT_KITE_COMPLETED]
Interactions required	[ITEM::ROOM_KITE] => [OBJECT::ALBUM]
Event triggered	[EVENT::L0_NONE_I3_INT_KITE_ALBUM_COMPLETED]
Item pickup	-

Main Character (Old)

Maybe here...?
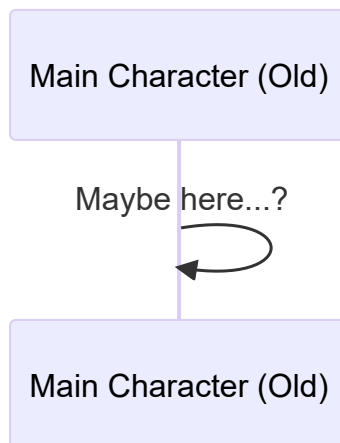
Main Character (Old)

Location 21 - Park : Iteration 1 (Adulthood)

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Description

First visit to the Park level. The main character, as an adult, is having a good time with his wife and daughter.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::US]	The three of us. Happy, as always.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L6_ADULTHOOD_I1_INT_US]
[OBJECT::BENCH]	My wife's favorite spot in the world. She spent hours sitting there.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BIN]	My daughter's favorite spot to hide her treasures when we played pirates.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BOAT]	The boat was full of holes. It hadn't been used for years.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FOUNTAIN]	Even though there's a river just a few meters away, we loved bathing our feet on the fountain.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::HOVEL]	Groups of [friends] were always celebrating all kind of events in the hovel.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L6_ADULTHOOD_I1_INTRO_COMPLETED]	The player has completed the introduction to the park.
[EVENT::L6_ADULTHOOD_I1_INT_US_COMPLETED]	The player has interacted with the three of them.

Action sequences

Action sequence ID	Description
[SEQUENCE::L6_ADULTHOOD_I1_INTRO]	Introduction to the park.
[SEQUENCE::L6_ADULTHOOD_I1_INT_US]	Interacting with the three of them.

[SEQUENCE::L6_ADULTHOOD_I1_INTRO] Action sequence 1 - Introduction to the park

Concept	Description
Action sequence ID	[SEQUENCE::L6_ADULTHOOD_I1_INTRO]

Concept	Description
Events required	[EVENT::L0_NONE_I3_INT_KITE_ALBUM_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L6_ADULTHOOD_I1_INTRO_COMPLETED]
Item pickup	-
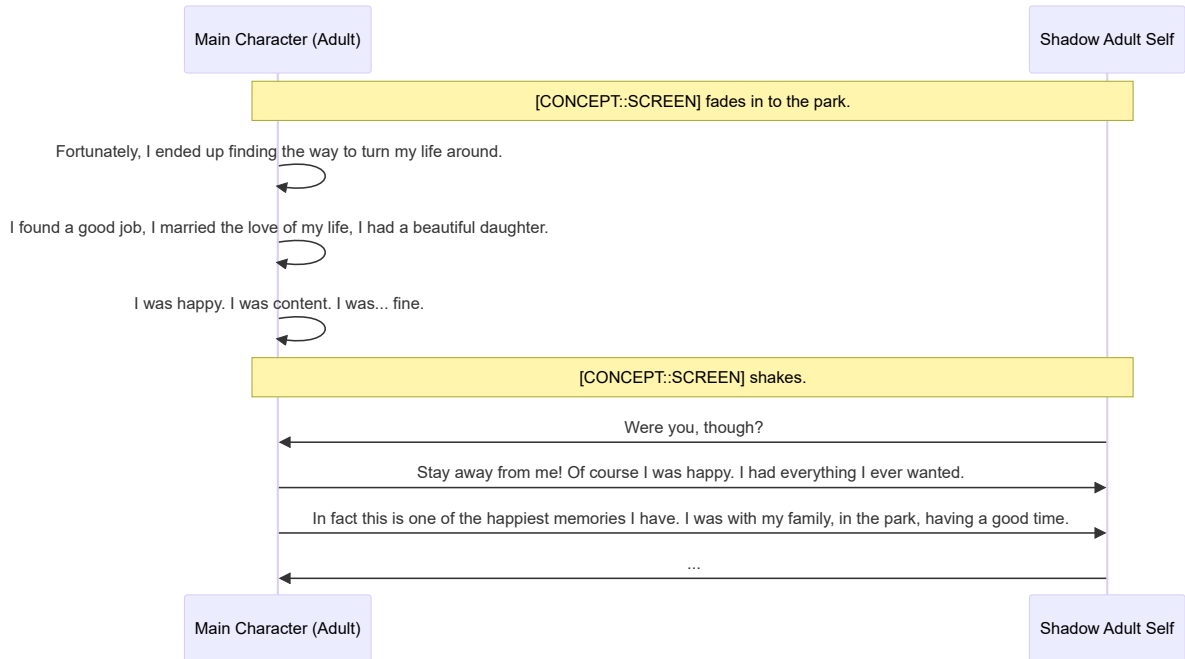
[SEQUENCE::L6_ADULTHOOD_I1_INT_US] Action sequence 2 - Interacting with the three of them

Concept	Description
Action sequence ID	[SEQUENCE::L6_ADULTHOOD_I1_INT_US]
Events required	[EVENT::L6_ADULTHOOD_I1_INTRO_COMPLETED]
Interactions required	[ACTION::INTERACT] => [CHARACTER::US]
Event triggered	[EVENT::L6_ADULTHOOD_I1_INT_US_COMPLETED]
Item pickup	-
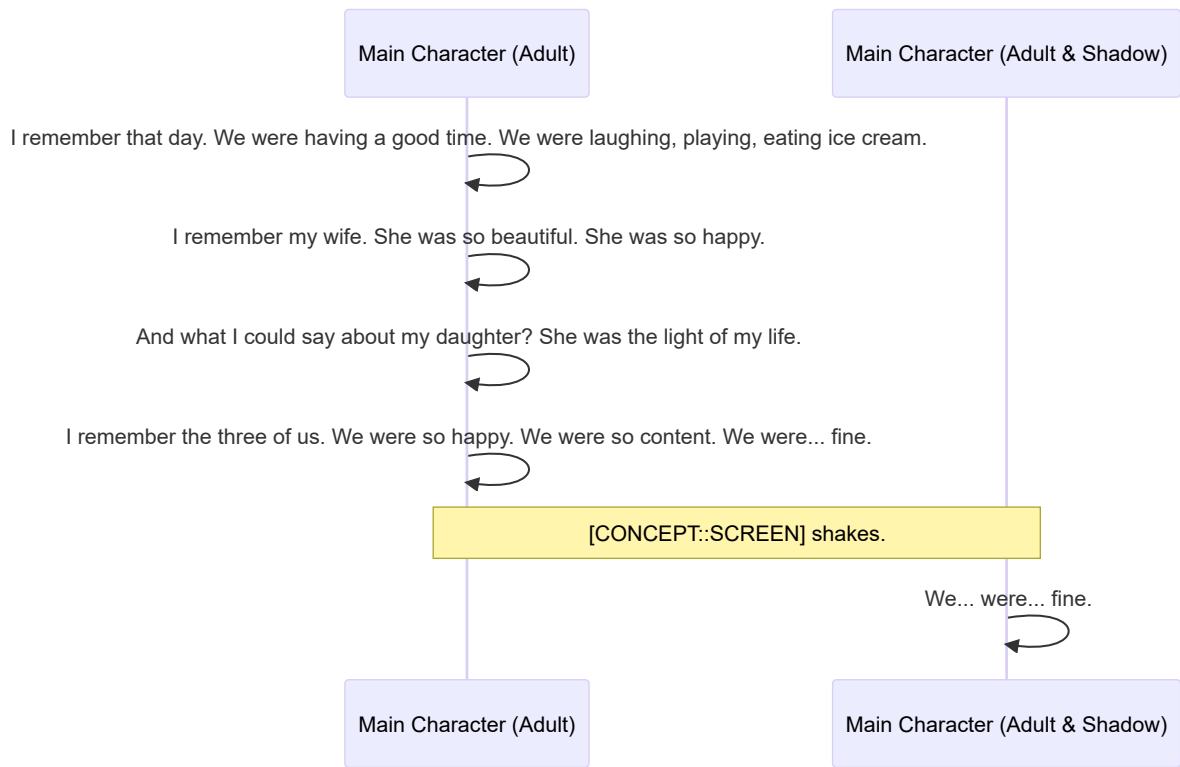
Location 22 - Park : Iteration 2 (Adulthood)

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Description

Second iteration of the Park level. The wife is acting erratically.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::US]	The three of us. Happy, as always.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::WIFE]	My wife acted erratically... She was not feeling especially well that day.	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L6_ADULTHOOD_I2_INT_WIFE]
[OBJECT::BENCH]	My wife's favorite spot in the world. She spent hours sitting there.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BIN]	My daughter's favorite spot to hide her treasures when we played pirates.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BOAT]	The boat was full of holes. It hadn't been used for years.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FOUNTAIN]	Even though there's a river just a few meters away, we loved bathing our feet on the fountain.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::HOVEL]	Groups of [friends] were always celebrating all kind of events in the hovel.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L6_ADULTHOOD_I2_INT_WIFE_COMPLETED]	The player has interacted with the wife.

Action sequences

Action sequence ID	Description
[SEQUENCE::L6_ADULTHOOD_I2_INT_WIFE]	Interacting with the wife.

[SEQUENCE::L6_ADULTHOOD_I2_INT_WIFE] Action sequence 1 - Interacting with the wife

Concept	Description
Action sequence ID	[SEQUENCE::L6_ADULTHOOD_I2_INT_WIFE]
Events required	[EVENT::L6_ADULTHOOD_I1_INT_US_COMPLETED]
Interactions required	[ACTION::INTERACT] => [CHARACTER::WIFE]
Event triggered	[EVENT::L6_ADULTHOOD_I2_INT_WIFE_COMPLETED]
Item pickup	-
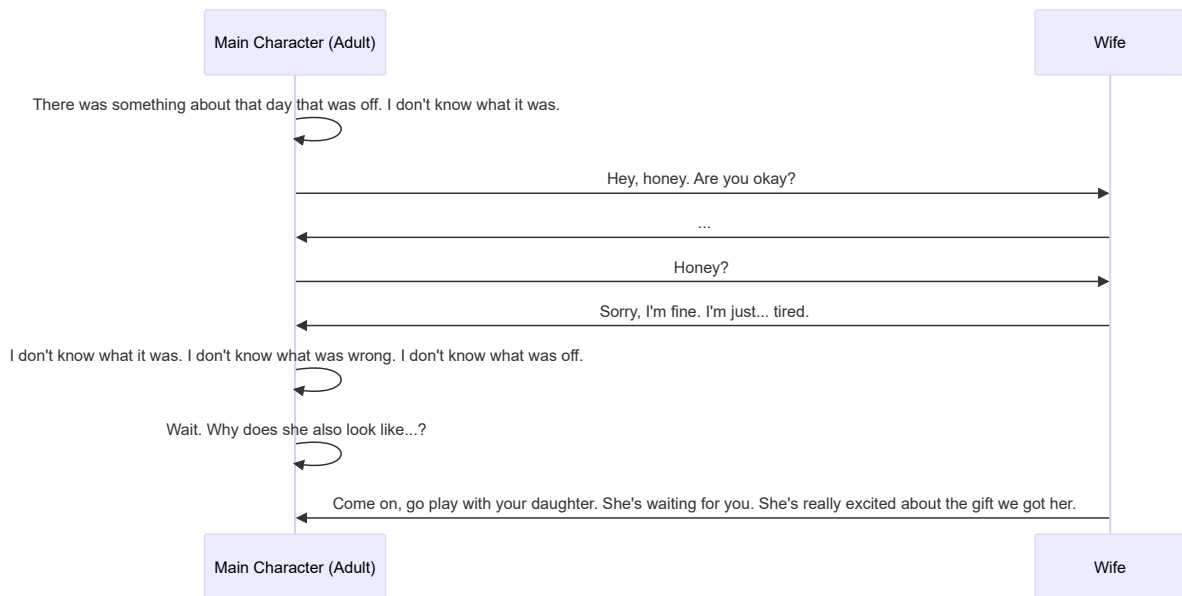
Location 23 - Park : Iteration 3 (Adulthood)

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Description

Third iteration of the Park level. The main character and his daughter are having a good time, but the wife is apart from them, looking at the river with a sad expression.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::DAUGHTER]	My daughter was the light of my life. All she wanted was to fly her [kite].	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L6_ADULTHOOD_I3_INT_DAUGHTER]
[CHARACTER::US]	The three of us. Happy, as always.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::WIFE]	My wife acted erratically... She was not feeling especially well that day.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BENCH]	My wife's favorite spot in the world. She spent hours sitting there.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BIN]	My daughter's favorite spot to hide her treasures when we played pirates.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BOAT]	The boat was full of holes. It hadn't been used for years.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FOUNTAIN]	Even though there's a river just a few meters away, we loved bathing our feet on the fountain.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::HOVEL]	Groups of [friends] were always celebrating all kind of events in the hovel.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]	The player has interacted with the daughter.

Action sequences

Action sequence ID	Description
[SEQUENCE::L6_ADULTHOOD_I3_INT_DAUGHTER]	Interacting with the daughter.

[SEQUENCE::L6_ADULTHOOD_I3_INT_DAUGHTER] Action sequence 1 - Interacting with the daughter

Concept	Description
Action sequence ID	[SEQUENCE::L6_ADULTHOOD_I3_INT_DAUGHTER]
Events required	[EVENT::L6_ADULTHOOD_I2_INT_WIFE_COMPLETED]
Interactions required	[ACTION::INTERACT] => [CHARACTER::DAUGHTER]
Event triggered	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]
Item pickup	-

Main Character (Adult) | **Daughter**

We were so happy. My daughter was really excited because she got a kite for her birthday.

Daddy, daddy! Let's fly the kite!

Sure thing, sweetie.

I was worried about my wife. She was always so happy. I don't know what was wrong with her that day.

But I didn't want to ruin my daughter's joy. I didn't want to ruin her day.

But the kite was nowhere to be found. Did we forget it somewhere?

Main Character (Adult) | **Daughter**

Location 24a - Ice cream parlor : Free roam (Childhood)

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Description

The ice cream parlor level as it was left after the first visit.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::BROTHER]	My big brother. I don't know what I'd have done without him.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::CARINGBROTHER]	When mom and dad fighted, my brother would take a [scoop] and play with me.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::DAD]	Dad. He always knew how to make me laugh.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::DISTRESSEDGRANDMA]	There was something wrong with grandma.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::GRANDMA]	Grandma. She was the heart of our family. And she really liked her [ice cream]!	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::MOM]	Mom. She was the kindest person I've ever known.	[OBJECT_TYPE::OBSERVABLE]	-	• [ACTION::INTERACT] => [ITEM::MOM]
[CHARACTER::OLDMANCHILD]	My child self. He was always happy... but he feels sad.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::PARENTSARGUING]	Mom and dad used to argue a lot. I think it was because of grandma.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::VENDOR]	The ice cream vendor. She always had a smile on his face.	[OBJECT_TYPE::OBSERVABLE]	-	-
[ITEM::MOM]	My mom.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::PEOPLE]	-
[ITEM::MUSICIAN]	My parents were always playing her songs. It was the only time they seemed to get along.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::PEOPLE]	-
[OBJECT::CASHREGISTER]	The parlor was always full of people. The register was probably full of money all the time.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FIGURINE]	That's the figurine I have at home.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FLAVORS]	They had the richest variety of flavors in town.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::ICECREAM]	A strawberry and vanilla ice cream cone. It was my grandma's favorite.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::JUKEBOX]	They had the best music playing all the time. It had the best [discs].	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::DISC] => [SEQUENCE::L3_CHILD_ROAM2_INT_DISC_JUKEBOX]

Object	Description	Object type	Pickable type	Uses / Interactions
[OBJECT::MENU]	On top of ice creams, they also served waffles, milkshakes, and sundaes.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::POSTER]	A poster of a new pizza place that opened nearby.	[OBJECT_TYPE::INTERACTABLE]	-	-
[OBJECT::SCOOP]	A scoop that was used to serve the ice cream.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::SPILLEDICECREAM]	The ice cream cone was on the floor.	[OBJECT_TYPE::OBSWRVABLE]	-	-

Global events

Event	Description
[EVENT::L3_CHILD_ROAM2_INT_DISC_JUKEBOX_COMPLETED]	The player has interacted with the jukebox.

Action sequences

Action sequence ID	Description
[SEQUENCE::L3_CHILD_ROAM2_INT_DISC_JUKEBOX]	Interacting with the jukebox.

[SEQUENCE::L3_CHILD_ROAM2_INT_DISC_JUKEBOX] Action sequence 1 - Interacting with the jukebox

Concept	Description
Action sequence ID	[SEQUENCE::L3_CHILD_ROAM2_INT_DISC_JUKEBOX]
Events required	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]
Interactions required	[ITEM::DISC] => [OBJECT::JUKEBOX]
Event triggered	[EVENT::L3_CHILD_ROAM2_INT_DISC_JUKEBOX_COMPLETED]
Item pickup	[ITEM::MUSICIAN]
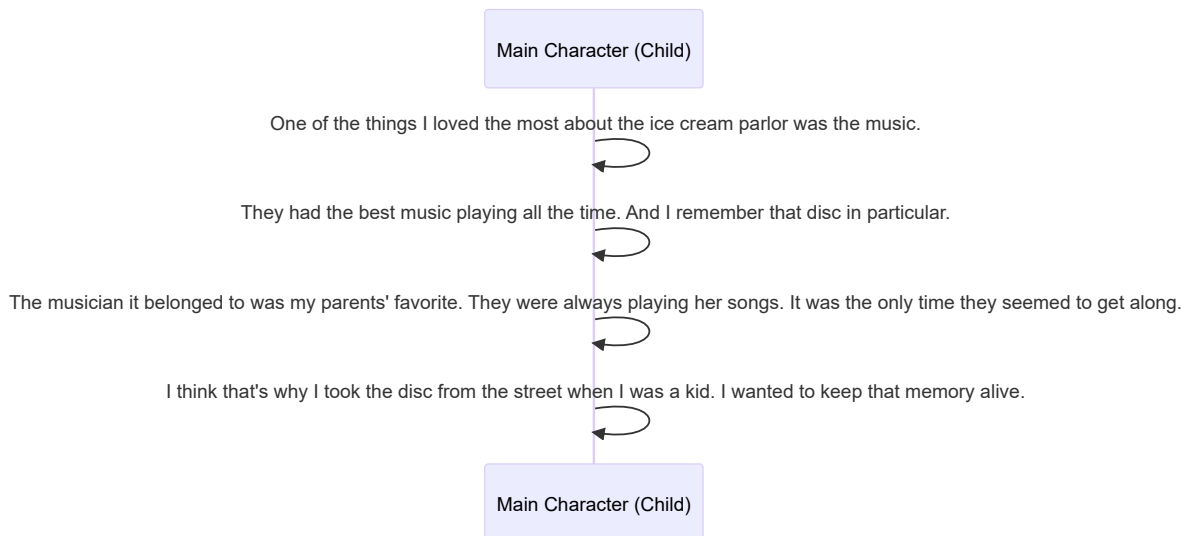
Main Character (Child)

One of the things I loved the most about the ice cream parlor was the music.

They had the best music playing all the time. And I remember that disc in particular.

The musician it belonged to was my parents' favorite. They were always playing her songs. It was the only time they seemed to get along.

I think that's why I took the disc from the street when I was a kid. I wanted to keep that memory alive.

Main Character (Child)

Location 24b - Ice cream parlor : Free roam (Adolescence)

Description

The ice cream parlor level but with the main character as a teenager. Also as it was left after the first visit.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions

[CHARACTER::FRIENDS]	My old friends were standing at the counter. They didn't notice me.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::NEWVENDOR]	The new proprietor of the ice cream parlor. She was really excited about the [opening].	[OBJECT_TYPE::OSBERVABLE]	-	-
[ITEM::FRIENDS]	My old friends were standing at the counter. They didn't notice me.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::PEOPLE]	-
[OBJECT::ARCADE]	They replaced the jukebox with an arcade machine. I didn't have any [money] to play.	[OBJECT_TYPE::INTERACTABLE]	-

  - [ITEM::COIN] => [SEQUENCE::L3_ADOLESCENCE_ROAM2_INT_COIN_ARCADE]

| | [OBJECT::CASHREGISTER] | The parlor was always full of people. The register was probably full of money all the time. | [OBJECT_TYPE::OBSERVABLE] | - | - | | [OBJECT::FIGURINE] | That's the figurine I have at home. | [OBJECT_TYPE::OBSERVABLE] | - | - | | [OBJECT::FLAVORS] | They had the richest variety of flavors in town. | [OBJECT_TYPE::OBSERVABLE] | - | - | | [OBJECT::MENU] | On top of ice creams, they also served waffles, milkshakes, and sundaes. | [OBJECT_TYPE::OBSERVABLE] | - | - |

Global events

Event	Description
[EVENT::L3_ADOLESCENCE_ROAM2_INT_COIN_ARCADE_COMPLETED]	The player has interacted with the arcade machine.

Action sequences

Action sequence ID	Description
[SEQUENCE::L3_ADOLESCENCE_ROAM2_INT_COIN_ARCADE]	Interacting with the arcade machine.

[SEQUENCE::L3_ADOLESCENCE_ROAM2_INT_COIN_ARCADE] Action sequence 1 - Interacting with the arcade machine

Concept	Description
Action sequence ID	[SEQUENCE::L3_ADOLESCENCE_ROAM2_INT_COIN_ARCADE]
Events required	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]

Concept	Description
Interactions required	[ITEM::COIN] => [OBJECT::ARCADE]
Event triggered	[EVENT::L3_ADOLESCENCE_ROAM2_INT_COIN_ARCADE_COMPLETED]
Item pickup	[ITEM::FRIENDS]
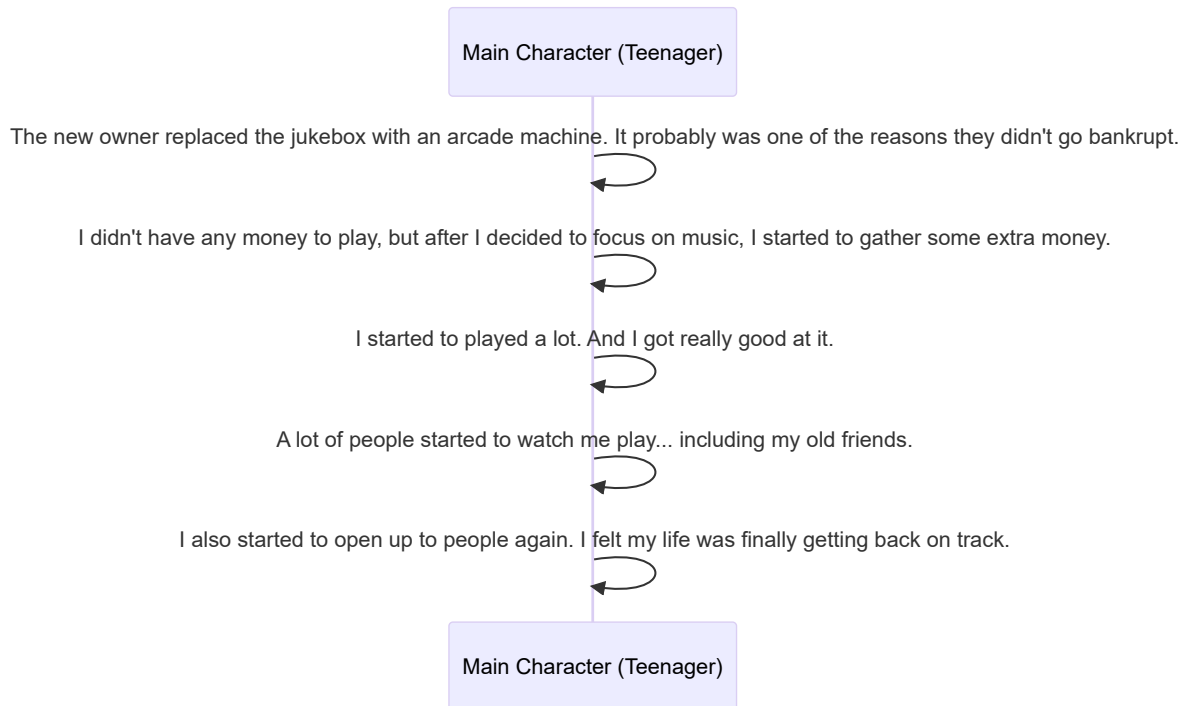
```
            Main Character (Teenager)

The new owner replaced the jukebox with an arcade machine. It probably was one of the reasons they didn't go bankrupt.
                         ↺

I didn't have any money to play, but after I decided to focus on music, I started to gather some extra money.
                         ↺

        I started to played a lot. And I got really good at it.
                         ↺

    A lot of people started to watch me play... including my old friends.
                         ↺

  I also started to open up to people again. I felt my life was finally getting back on track.
                         ↺

            Main Character (Teenager)
```

Location 24c - Ice cream parlor : Free roam (Adulthood)

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Description

The ice cream parlor level but with the main character as an adult. He's sitting with his wife and daughter in the same table that he used to visit with his family as a child.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::EXCITEDDAUGHTER]	My daughter was the light of my life. That day was [special] for her.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::BIRTHDAY] => [SEQUENCE::L3_ADULTHOOD_ROAM2_INT_BIRTHDAY_DAUGHTER]
[ITEM::KITE]	The kite we got for her birthday.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::CASHREGISTER]	The parlor was always full of people. The register was probably full of money all the time.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FIGURINE]	That's the figurine I have at home.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FLAVORS]	They had the richest variety of flavors in town.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::KITE]	The kite we got for her birthday.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::MENU]	On top of ice creams, they also served waffles, milkshakes, and sundaes.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

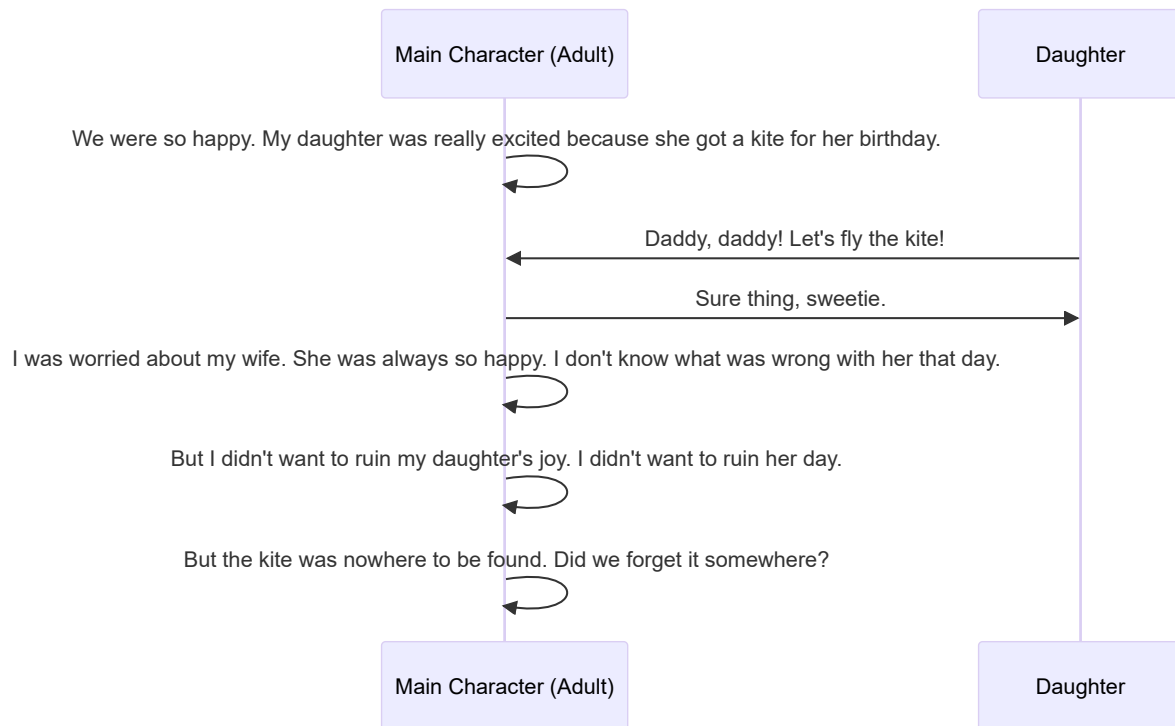| Event	Description
[EVENT::L3_ADULTHOOD_ROAM2_INT_BIRTHDAY_DAUGHTER_COMPLETED]	The player has interacted with the daughter.

Action sequences

Action sequence ID	Description
[SEQUENCE::L3_ADULTHOOD_ROAM2_INT_BIRTHDAY_DAUGHTER]	Interacting with the daughter.

[SEQUENCE::L3_ADULTHOOD_ROAM2_INT_BIRTHDAY_DAUGHTER] Action sequence 1 - Interacting with the daughter

Concept	Description
Action sequence ID	[SEQUENCE::L3_ADULTHOOD_ROAM2_INT_BIRTHDAY_DAUGHTER]
Events required	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]
Interactions required	[ITEM::BIRTHDAY] => [CHARACTER::EXCITEDDAUGHTER]
Event triggered	[EVENT::L3_ADULTHOOD_ROAM2_INT_BIRTHDAY_DAUGHTER_COMPLETED]
Item pickup	[ITEM::KITE]
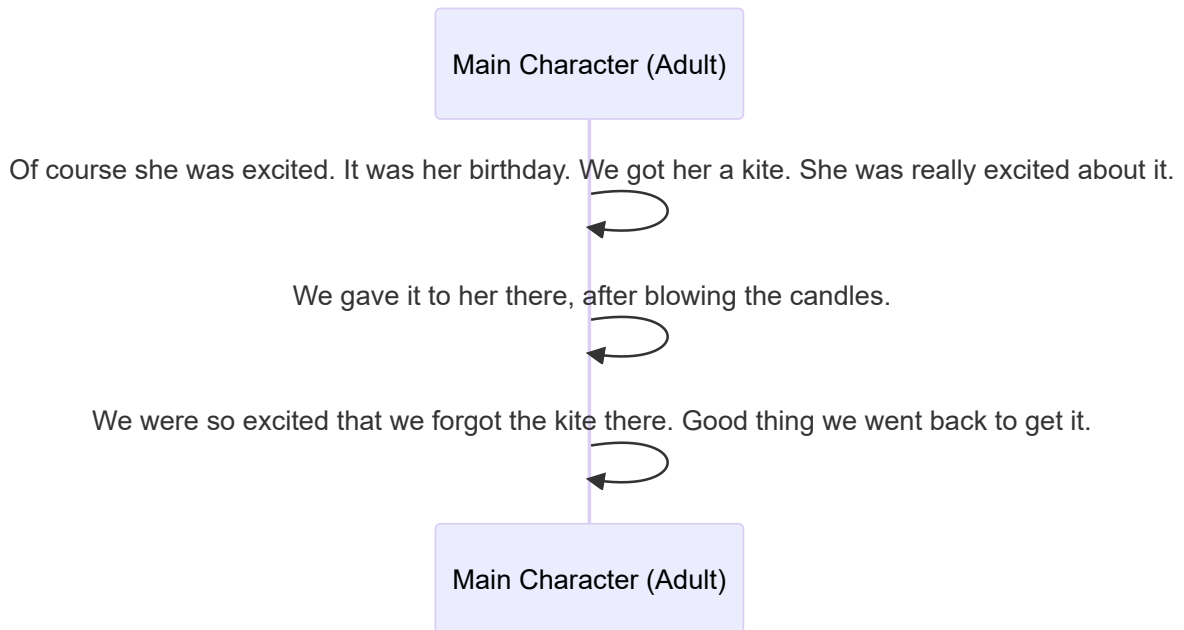
Main Character (Adult)

Of course she was excited. It was her birthday. We got her a kite. She was really excited about it.

We gave it to her there, after blowing the candles.

We were so excited that we forgot the kite there. Good thing we went back to get it.

Main Character (Adult)

Location 24d - Street : Free roam (Childhood)

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Description

The street level but with the main character as a child. Also as it was left after the first visit.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::OLDMANCHILD]	My child self. He loved [drawing]. He always welcomed any inspiration.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::DRAWING] => [SEQUENCE::L5_CHILD_ROAM2_INT_DRAWING_OLDMANCHILD]
[ITEM::DISC]	I found this disc on the street. It belonged to a musician that my parents loved.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::GRAFFITI]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::WORKSITE]	The street has been under construction for years.	[OBJECT_TYPE::OBSERVABLE]	-	

Global events

Event	Description
[EVENT::L5_CHILD_ROAM2_INT_DRAWING_OLDMANCHILD_COMPLETED]	The player has used the drawing on the child.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_CHILD_ROAM2_INT_DRAWING_OLDMANCHILD]	Interacting with the child.

[SEQUENCE::L5_CHILD_ROAM2_INT_DRAWING_OLDMANCHILD] Action sequence 1 - Interacting with the child

Concept	Description
Action sequence ID	[SEQUENCE::L5_CHILD_ROAM2_INT_DRAWING_OLDMANCHILD]
Events required	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]
Interactions required	[ITEM::DRAWING] => [CHARACTER::OLDMANCHILD]
Event triggered	[EVENT::L5_CHILD_ROAM2_INT_DRAWING_OLDMANCHILD_COMPLETED]
Item pickup	[ITEM::DISC]
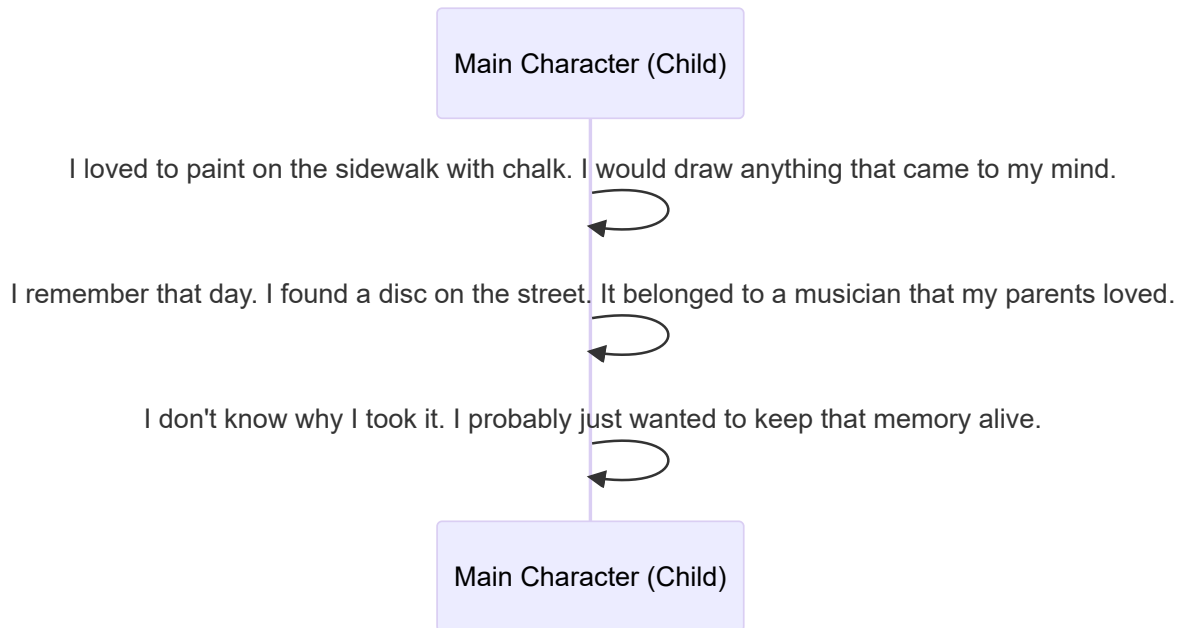
```
      ┌─────────────────────────┐
      │  Main Character (Child) │
      └─────────────────────────┘
```

I loved to paint on the sidewalk with chalk. I would draw anything that came to my mind. ↻

I remember that day. I found a disc on the street. It belonged to a musician that my parents loved. ↻

I don't know why I took it. I probably just wanted to keep that memory alive. ↻

```
      ┌─────────────────────────┐
      │  Main Character (Child) │
      └─────────────────────────┘
```

Location 24e - Street : Free roam (Adolescence)

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Description

The street level as it was left after the first visit. The main character is looking at a graffiti he made on the wall.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::NEIGHBORS]	Neighbors didn't like me. They thought I was a troublemaker.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANTEEN]	My adolescent self. He only thought about [graffiti] and [music].	[OBJECT_TYPE::OBSERVABLE]	-	• [ITEM::MUSICIAN] => [SEQUENCE::L5_ADOLESCENCE_ROAM2_INT_MUSICIAN_OLDMANTEEN]
[CHARACTER::POLICEWOMAN]	The police officer was empathetic but firm.	[OBJECT_TYPE::OBSERVABLE]	-	-
[ITEM::COIN]	I earnt this coin playing my guitar.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::BRICK]	The street was still under construction. There was material everywhere.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::GRAFFITI]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::POLICECAR]	I hated the police. I always thought of [smashing] their cars.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::WORKSITE]	The street has been under construction for years.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L5_ADOLESCENCE_ROAM2_INT_MUSICIAN_OLDMANTEEN_COMPLETED]	The player has used the musician on the teenager.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_ADOLESCENCE_ROAM2_INT_MUSICIAN_OLDMANTEEN]	Interacting with the teenager.

[SEQUENCE::L5_ADOLESCENCE_ROAM2_INT_MUSICIAN_OLDMANTEEN] Action sequence 1 - Interacting with the teenager

Concept	Description
Action sequence ID	[SEQUENCE::L5_ADOLESCENCE_ROAM2_INT_MUSICIAN_OLDMANTEEN]
Events required	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]
Interactions required	[ITEM::MUSICIAN] => [CHARACTER::OLDMANTEEN]
Event triggered	[EVENT::L5_ADOLESCENCE_ROAM2_INT_MUSICIAN_OLDMANTEEN_COMPLETED]
Item pickup	[ITEM::COIN]
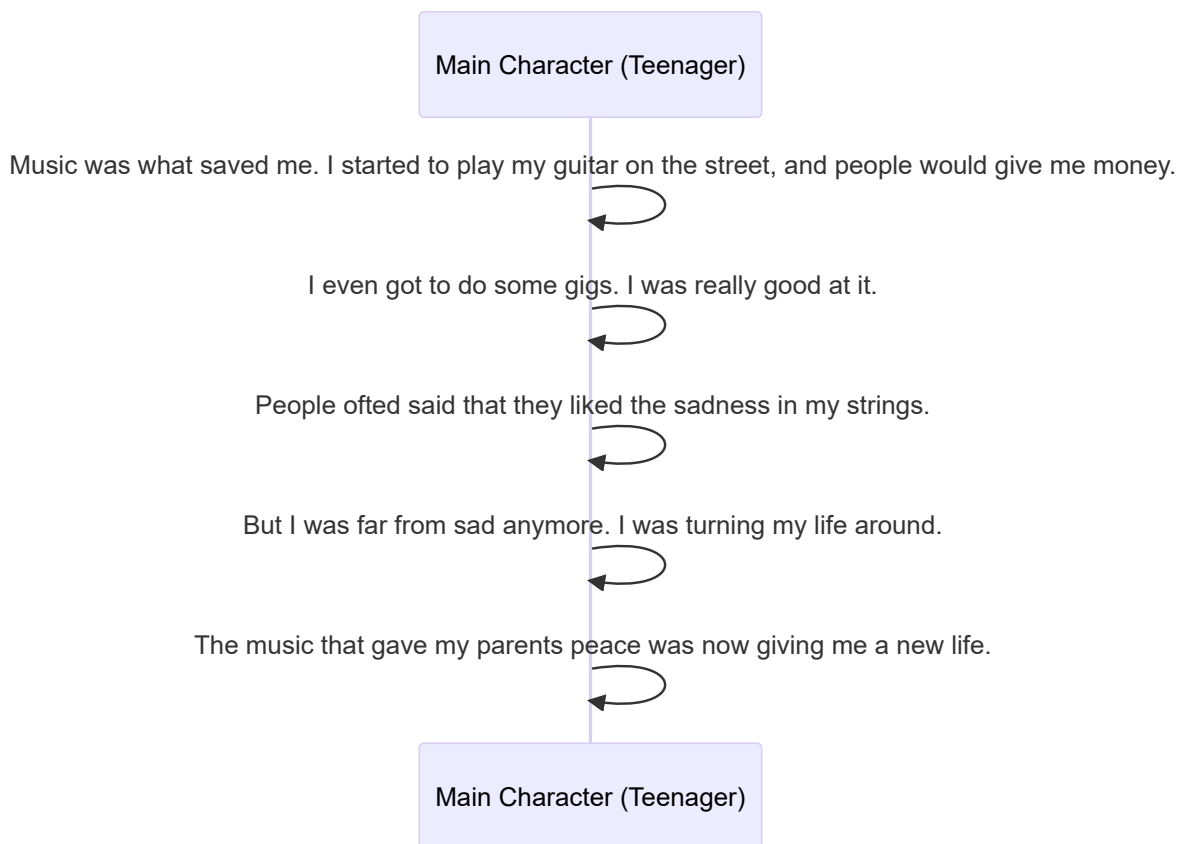
Main Character (Teenager)

Music was what saved me. I started to play my guitar on the street, and people would give me money.

I even got to do some gigs. I was really good at it.

People ofted said that they liked the sadness in my strings.

But I was far from sad anymore. I was turning my life around.

The music that gave my parents peace was now giving me a new life.

Main Character (Teenager)

Location 24f - Street : Free roam (Adulthood)

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Description

The street level but with the main character as an adult. He's sitting on the edge of the sidewalk, with a briefcase open in the ground and an empty bottle of alcohol near him.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::OLDMANADULT]	My adult self. He has forgotten how to [play].	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::TOY] => [SEQUENCE::L5_ADULTHOOD_INT_TOY_OLDMANADULT]
[ITEM::DRAWING]	This drawing was made by my daughter when she was just three. I always carried it with me.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::CLOSEDSHOP]	Many shops were closed. The street was not as lively as it used to be.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::GRAFFITI]	I used to draw graffiti on the walls of the street when I was a teenager.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::PIZZAPARLORSIGN]	The [pizza parlor] opened when I was a kid, but it [closed] almost immediately.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::WORKSITE]	The street has been under construction for years.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L5_ADULTHOOD_INT_TOY_OLDMANADULT_COMPLETED]	The player has used the toy on the adult.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_ADULTHOOD_INT_TOY_OLDMANADULT]	Interacting with the adult.

[SEQUENCE::L5_ADULTHOOD_INT_TOY_OLDMANADULT] Action sequence 1 - Interacting with the adult

Concept	Description
Action sequence ID	[SEQUENCE::L5_ADULTHOOD_INT_TOY_OLDMANADULT]
Events required	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]
Interactions required	[ITEM::TOY] => [CHARACTER::OLDMANADULT]
Event triggered	[EVENT::L5_ADULTHOOD_INT_TOY_OLDMANADULT_COMPLETED]
Item pickup	[ITEM::DRAWING]
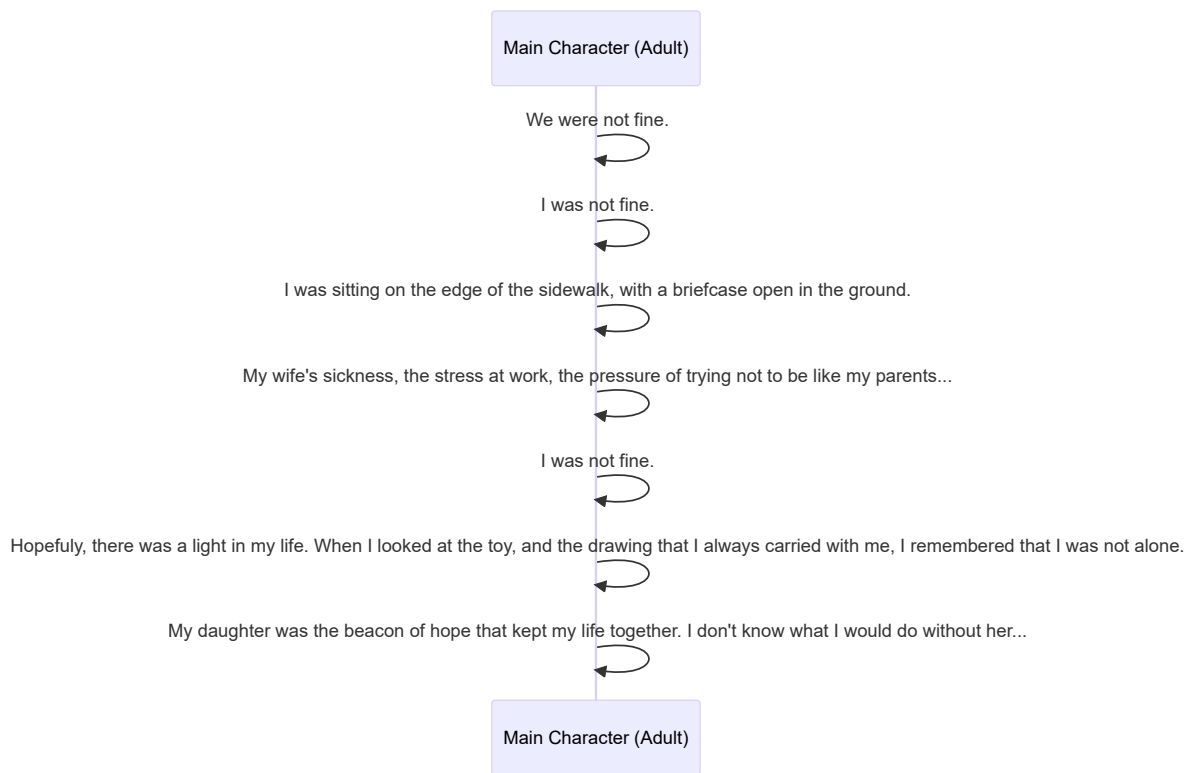
Main Character (Adult)

We were not fine.

I was not fine.

I was sitting on the edge of the sidewalk, with a briefcase open in the ground.

My wife's sickness, the stress at work, the pressure of trying not to be like my parents...

I was not fine.

Hopefuly, there was a light in my life. When I looked at the toy, and the drawing that I always carried with me, I remembered that I was not alone.

My daughter was the beacon of hope that kept my life together. I don't know what I would do without her...

Main Character (Adult)

Location 24g - Park : Free roam (Childhood)

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Description

The park level but with the main character as a child. The main character is lost in the park, lost by his disoriented grandmother.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::OLDMANCHILDCRYING]	My child self. When he was sad, all he ever wanted was [mom].	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::MOM] => [SEQUENCE::L6_CHILD_ROAM2_INT_MOM_OLDMANCHILD]
[ITEM::TOY]	A toy mom was getting me while I was in the park with grandma.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::THING]	-
[OBJECT::BENCH]	My wife's favorite spot in the world. She spent hours sitting there.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BIN]	My daughter's favorite spot to hide her treasures when we played pirates.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BOAT]	The boat was full of holes. It hadn't been used for years.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FOUNTAIN]	Even though there's a river just a few meters away, we loved bathing our feet on the fountain.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::HOVEL]	Groups of [friends] were always celebrating all kind of events in the hovel.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L6_CHILD_ROAM2_INT_MOM_OLDMANCHILD_COMPLETED]	The player has interacted with the child.

Action sequences

Action sequence ID	Description
[SEQUENCE::L6_CHILD_ROAM2_INT_MOM_OLDMANCHILD]	Interacting with the child.

[SEQUENCE::L6_CHILD_ROAM2_INT_MOM_OLDMANCHILD] Action sequence 1 - Interacting with the child

Concept	Description
Action sequence ID	[SEQUENCE::L6_CHILD_ROAM2_INT_MOM_OLDMANCHILD]
Events required	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]
Interactions required	[ITEM::MOM] => [CHARACTER::OLDMANCHILDCRYING]
Event triggered	[EVENT::L6_CHILD_ROAM2_INT_MOM_OLDMANCHILD_COMPLETED]
Item pickup	[ITEM::TOY]

Main Character (Child)

Grandma had one of her episodes that day.

She got disoriented and forgot about me. When I went looking for her, I got lost.

I couldn't stop crying. People asked my about my parents, but I was just a scared kid.

Eventually, my mom found me. She had left me with grandma to get me a toy.

She was so worried. She was so scared. She was so relieved when she found me.

That day, I got a toy. I still have it. It's one of the few things I have from my childhood.

But it was also the day that broke my parents' relationship. They never got along after that.

Main Character (Child)

Location 24h - Park : Free roam (Adolescence)

Description

The park level but with the main character as a teenager. The main character is sitting on the edge of the river, looking at the water with a sad expression.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[ITEM::BIRTHDAY]	As much as I despised birthdays for what happened to me as a kid, I loved celebrating them with my friends.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::EVENT]	-
[OBJECT::BENCH]	My wife's favorite spot in the world. She spent hours sitting there.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BIN]	My daughter's favorite spot to hide her treasures when we played pirates.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BOAT]	The boat was full of holes. It hadn't been used for years.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FOUNTAIN]	Even though there's a river just a few meters away, we loved bathing our feet on the fountain.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::HOVEL]	Groups of [friends] were always celebrating all kind of events in the hovel.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::FRIENDS] => [SEQUENCE::L6_ADOLESCENCE_ROAM2_INT_FRIENDS_HOVEL]

Global events

Event	Description
[EVENT::L6_ADOLESCENCE_ROAM2_INT_FRIENDS_HOVEL_COMPLETED]	The player has interacted with the hovel.

Action sequences

Action sequence ID	Description
[SEQUENCE::L6_ADOLESCENCE_ROAM2_INT_FRIENDS_HOVEL]	Interacting with the hovel.

[SEQUENCE::L6_ADOLESCENCE_ROAM2_INT_FRIENDS_HOVEL] Action sequence 1 - Interacting with the hovel

Concept	Description
Action sequence ID	[SEQUENCE::L6_ADOLESCENCE_ROAM2_INT_FRIENDS_HOVEL]
Events required	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]
Interactions required	[ITEM::FRIENDS] => [OBJECT::HOVEL]
Event triggered	[EVENT::L6_ADOLESCENCE_ROAM2_INT_FRIENDS_HOVEL_COMPLETED]
Item pickup	[ITEM::BIRTHDAY]

```
              ┌─────────────────────────┐
              │  Main Character (Child)  │
              └─────────────────────────┘
                          │
Opening up to my old friends was one of the best things that I have ever done.
                          ↺
        After that, they were always there for me. And I was there for them.
                          ↺
     Weeks after getting in touch with them, they threw me a surprise birthday party.
                          ↺
          I was so happy. The light at the end of the tunnel was nearer than ever.
                          ↺
              ┌─────────────────────────┐
              │  Main Character (Child)  │
              └─────────────────────────┘
```
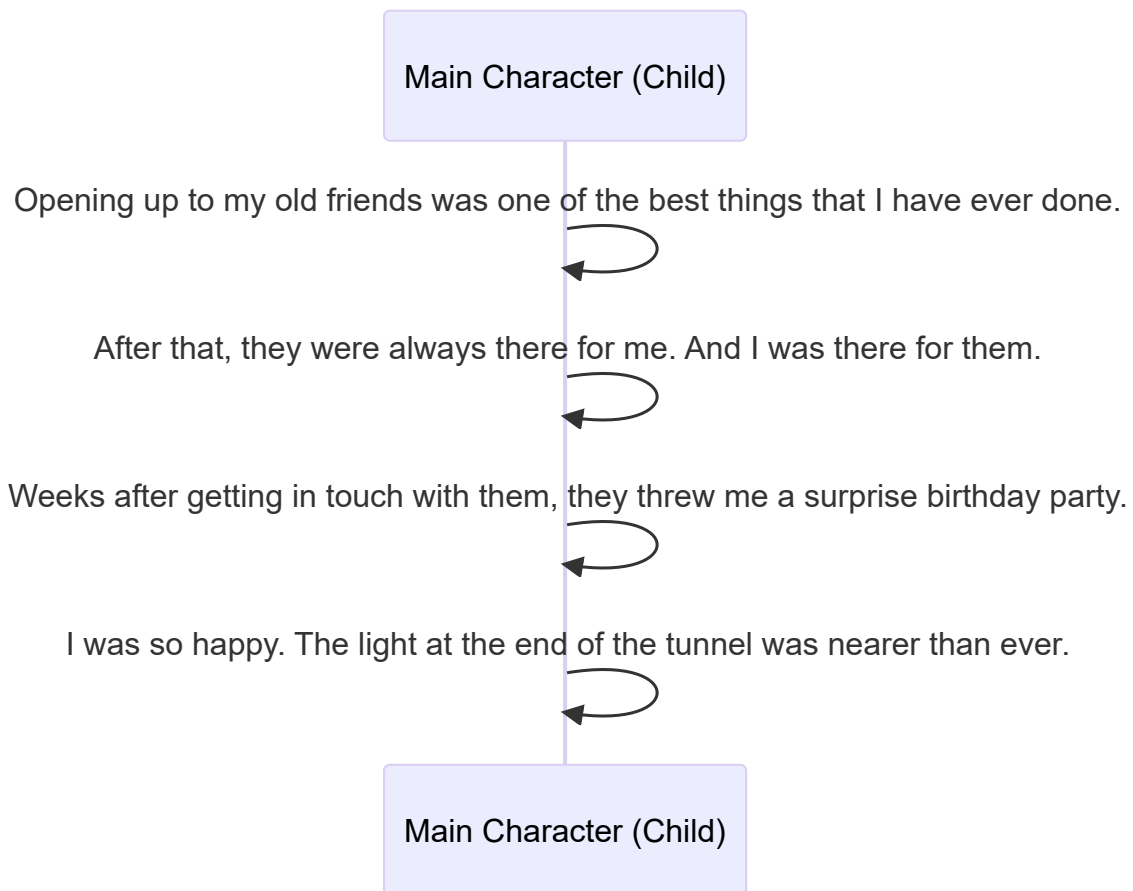
Location 24i - Park : Free roam (Adulthood)

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Description

The park level as it was left after the first visit.

Objects

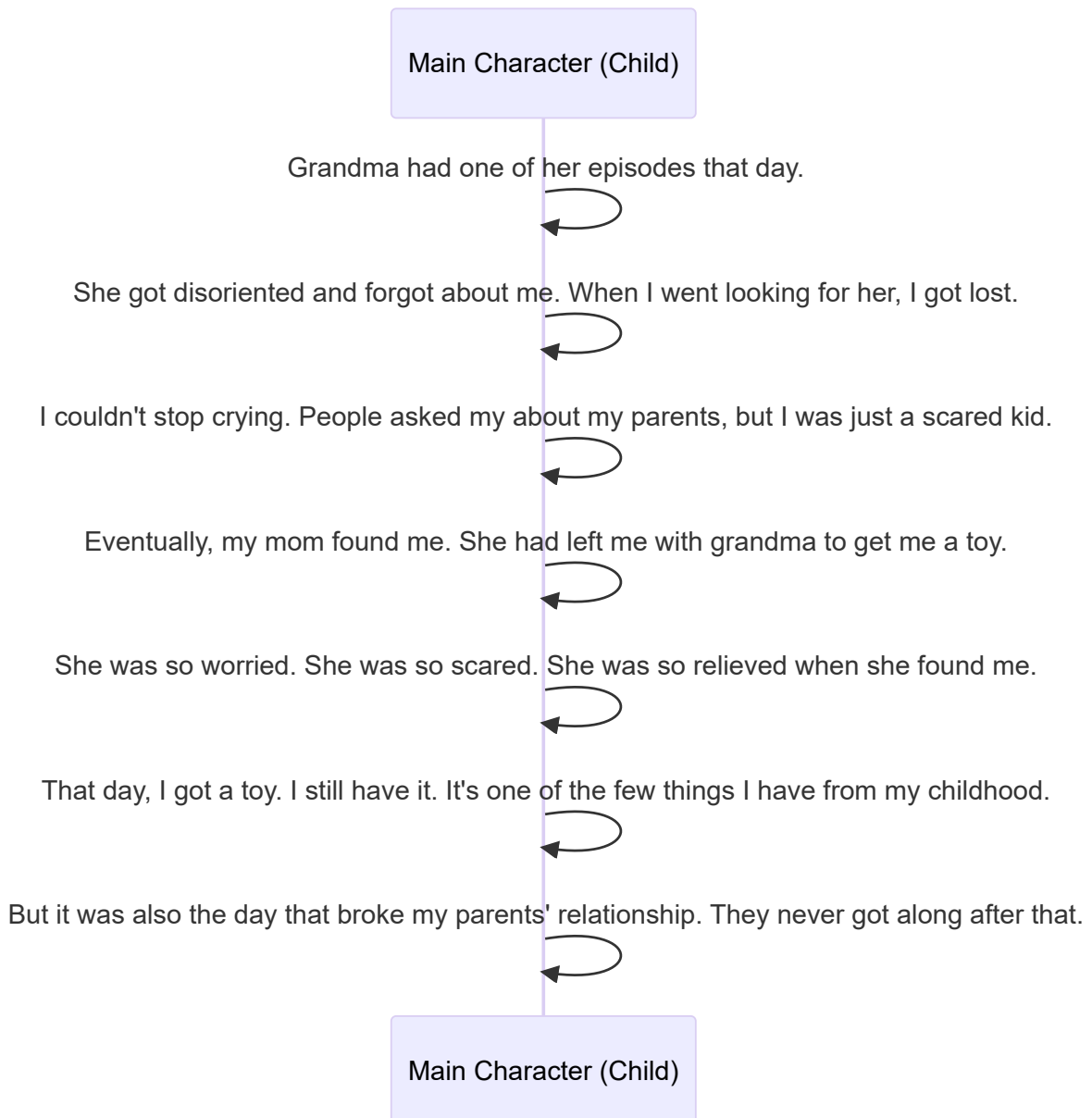| Object	Description	Object type	Pickable type	Uses / Interactions
Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-
[CHARACTER::DAUGHTER]	My daughter was the light of my life. All she wanted was to fly her [kite].	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::KITE] => [SEQUENCE::L6_ADULTHOOD_ROAM2_INT_KITE_DAUGHTER]
[CHARACTER::US]	The three of us. Happy, as always.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::WIFE]	My wife acted erratically... She was not feeling especially well that day.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BENCH]	My wife's favorite spot in the world. She spent hours sitting there.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BIN]	My daughter's favorite spot to hide her treasures when we played pirates.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::BOAT]	The boat was full of holes. It hadn't been used for years.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::FOUNTAIN]	Even though there's a river just a few meters away, we loved bathing our feet on the fountain.	[OBJECT_TYPE::OBSERVABLE]	-	-
[OBJECT::HOVEL]	Groups of [friends] were always celebrating all kind of events in the hovel.	[OBJECT_TYPE::OBSERVABLE]	-	-

Global events

Event	Description
[EVENT::L6_ADULTHOOD_ROAM2_INT_KITE_DAUGHTER_COMPLETED]	The player has interacted with the daughter.

Action sequences

Action sequence ID	Description
[SEQUENCE::L6_ADULTHOOD_ROAM2_INT_KITE_DAUGHTER]	Interacting with the daughter.

[SEQUENCE::L6_ADULTHOOD_ROAM2_INT_KITE_DAUGHTER] Action sequence 1 - Interacting with the daughter

Concept	Description
Action sequence ID	[SEQUENCE::L6_ADULTHOOD_ROAM2_INT_KITE_DAUGHTER]
Events required	[EVENT::L6_ADULTHOOD_I3_INT_DAUGHTER_COMPLETED]
Interactions required	[ITEM::KITE] => [CHARACTER::DAUGHTER]
Event triggered	[EVENT::L6_ADULTHOOD_ROAM2_INT_KITE_DAUGHTER_COMPLETED]
Item pickup	-
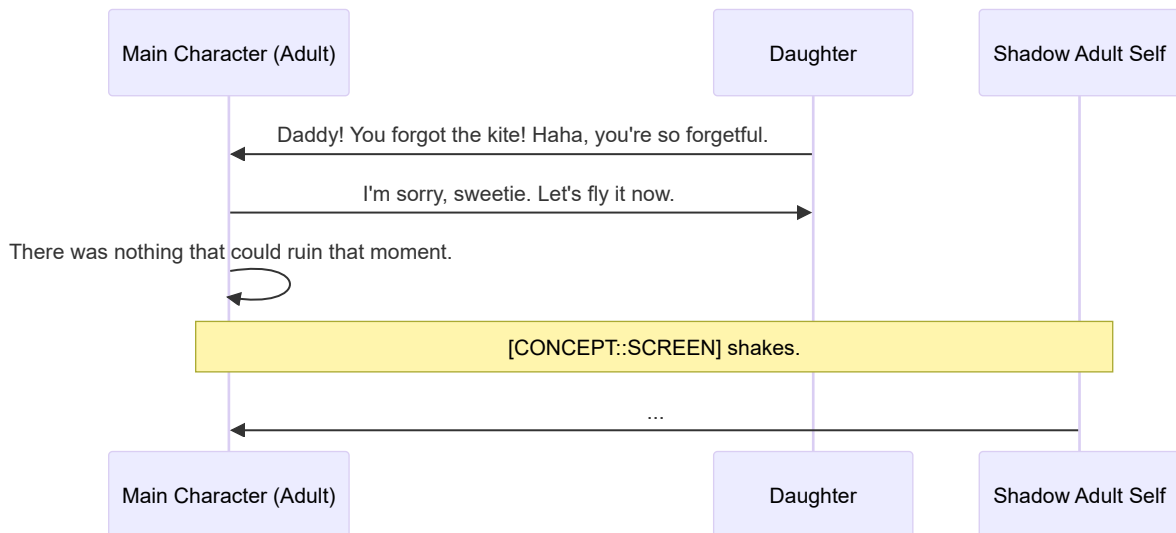
Location 25 - Park : Minigame (Adulthood)

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Description

The minigame consists of flying a kite in the park. The player must move the kite up and down while avoiding seagulls. Every time the player succeeds, the main character's daughter will say something sweet. If the player fails, the sound of an ambulace will keep getting louder. The minigame doesn't end because of the player's performance but because of time passing.

Main character's daughter phrases:

Ambulance sound phrases:

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-

Global events

Event	Description
[EVENT::L6_ADULTHOOD_MINIGAME_COMPLETED]	The player has completed the minigame.

Action sequences

Action sequence ID	Description
-	-

Location 26 - Park : After minigame (Adulthood)

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Description

The main character is back in the park after the minigame. An ambulance has arrived, and the main character's wife is being taken away. There are no objects to interact with.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[ITEM::LOSS]	I am empty.	[OBJECT_TYPE::PICKABLE]	[ITEM_TYPE::FEELING]	-

Global events

Event	Description
[EVENT::L6_ADULTHOOD_COMPLETED]	The player has completed the adulthood level.

Action sequences

Action sequence ID	Description
[SEQUENCE::L6_ADULTHOOD_I4_OUTRO]	Outro of the adulthood level.

[SEQUENCE::L6_ADULTHOOD_I4_OUTRO] Action sequence 1 - Outro

Concept	Description
Action sequence ID	[SEQUENCE::L6_ADULTHOOD_I4_OUTRO]
Events required	[EVENT::L6_ADULTHOOD_MINIGAME_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L6_ADULTHOOD_COMPLETED]
Item pickup	[ITEM::LOSS]
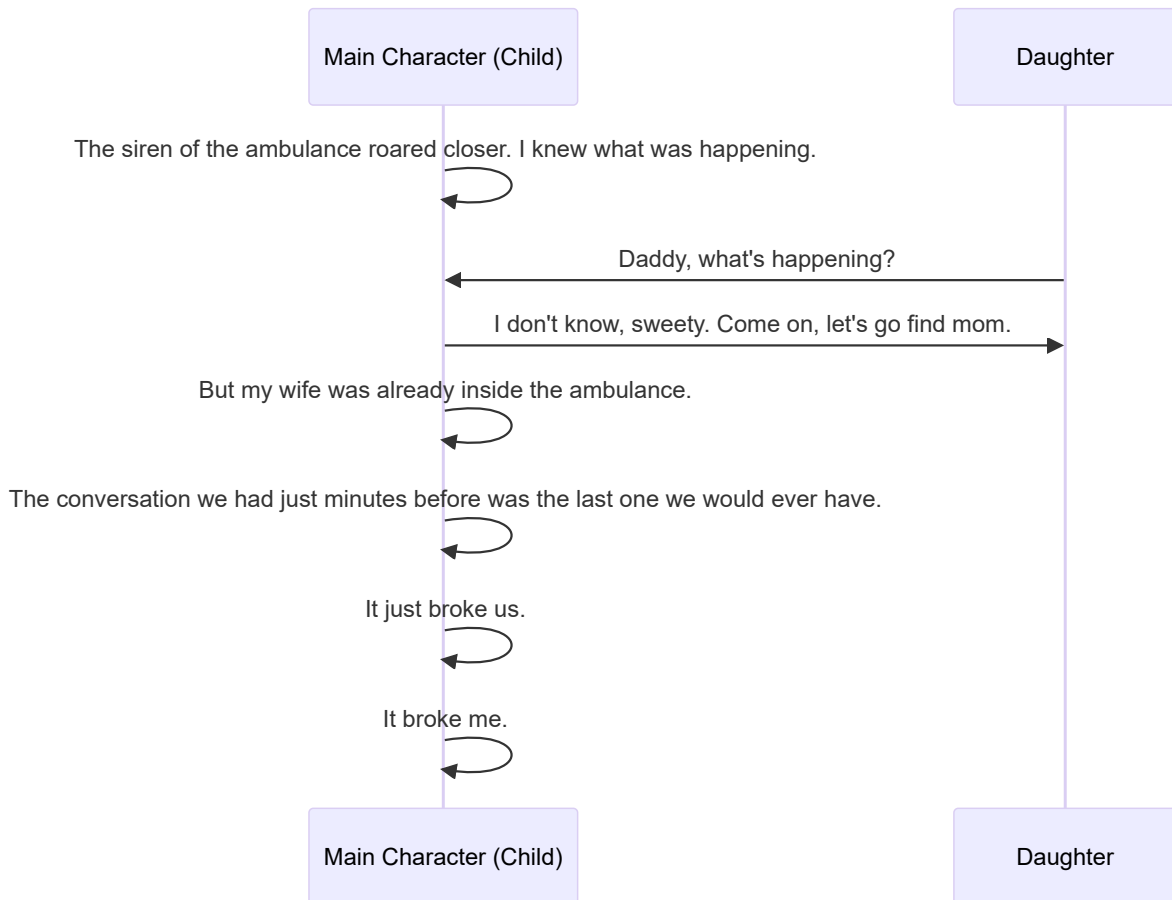
Location 27 - Street : Final sequence (Mixed) - Iteration 1

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Description

An alternative version of the street level that combines elements from all four stages of the main character's life. At the beginning, only the child version of the main character is present. The player can interact use the fear feeling on the child version to trigger the next age group.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::OLDMANCHILDMIXEDOLDMANCHILDMIXED]	My child self. He was always happy... no, he was [afraid].	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::FEAR] => [SEQUENCE::L5_MIXED_I1_INT_FEAR_OLDMANCHILD]

Global events

Event	Description
[EVENT::L5_MIXED_I1_INTRO_COMPLETED]	The player has completed the introduction to the mixed street childhood iteration.
[EVENT::L5_MIXED_I1_INT_FEAR_OLDMANCHILD_COMPLETED]	The player has used the fear feeling on the child version.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_MIXED_I1_INTRO]	Introduction to the mixed street childhood iteration.
[SEQUENCE::L5_MIXED_I1_INT_FEAR_OLDMANCHILD]	Using the fear feeling on the child version.

[SEQUENCE::L5_MIXED_I1_INTRO] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L5_MIXED_I1_INTRO]
Events required	[EVENT::L6_ADULTHOOD_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L5_MIXED_I1_INTRO_COMPLETED]
Item pickup	-

Main Character (Old)

[CONCEPT::SCREEN] fades in to the street.

This street again? There must be something important here.

That's child me again, but he seems sad. He seems so full of joy... But why is he so sad?

[CHARACTER::OLDMANCHILDMIXED] fades in.

Main Character (Old)

[SEQUENCE::L5_MIXED_I1_INT_FEAR_OLDMANCHILD] Action sequence 2 - Using the fear feeling on the child version

Concept	Description
Action sequence ID	[SEQUENCE::L5_MIXED_I1_INT_FEAR_OLDMANCHILD]
Events required	[EVENT::L5_MIXED_I1_INTRO_COMPLETED]
Interactions required	[ITEM::FEAR] => [CHARACTER::OLDMANCHILDMIXED]
Event triggered	[EVENT::L5_MIXED_I1_INT_FEAR_OLDMANCHILD_COMPLETED]
Item pickup	-
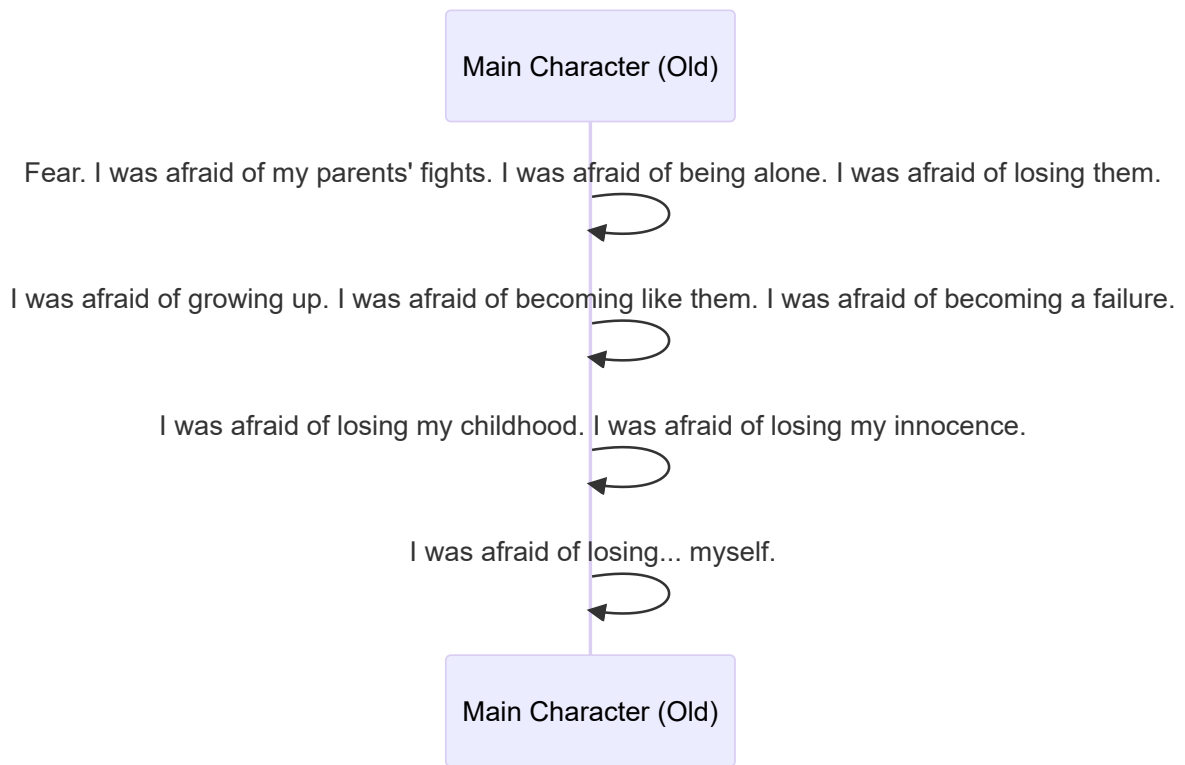
Location 28 - Street : Final sequence (Mixed) - Iteration 2

[Back to Location List](#)

Description

The second iteration of the mixed street level, where the main character's adolescent version is present. The player can use the anger feeling on the adolescent version to trigger the next age group.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::OLDMANCHILDMIXEDOLDMANCHILDMIXED]	My child self. He was always happy... no, he was [afraid].	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANTEENMIXED]	My adolescent self. He was always so lonely, so [angry].	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::ANGER] => [SEQUENCE::L5_MIXED_I2_INT_ANGER_OLDMANTEEN]

Global events

Event	Description
[EVENT::L5_MIXED_I2_INTRO_COMPLETED]	The player has completed the introduction to the mixed street adolescence iteration.
[EVENT::L5_MIXED_I2_INT_ANGER_OLDMANTEEN_COMPLETED]	The player has used the anger feeling on the adolescent version.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_MIXED_I2_INTRO]	Introduction to the mixed street adolescence iteration.
[SEQUENCE::L5_MIXED_I2_INT_ANGER_OLDMANTEEN]	Using the anger feeling on the adolescent version.

[SEQUENCE::L5_MIXED_I2_INTRO] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L5_MIXED_I2_INTRO]
Events required	[EVENT::L5_MIXED_I1_INT_FEAR_OLDMANCHILD_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L5_MIXED_I2_INTRO_COMPLETED]
Item pickup	-

Main Character (Old)

That's my adolescent self. He was always so lonely, but there is something else in his eyes.

[CHARACTER::OLDMANTEENMIXED] fades in.

Main Character (Old)

[SEQUENCE::L5_MIXED_I2_INT_ANGER_OLDMANTEEN] Action sequence 2 - Using the anger feeling on the adolescent version

Concept	Description
Action sequence ID	[SEQUENCE::L5_MIXED_I2_INT_ANGER_OLDMANTEEN]
Events required	[EVENT::L5_MIXED_I2_INTRO_COMPLETED]
Interactions required	[ITEM::ANGER] => [CHARACTER::OLDMANTEEN]
Event triggered	[EVENT::L5_MIXED_I2_INT_ANGER_OLDMANTEEN_COMPLETED]
Item pickup	-
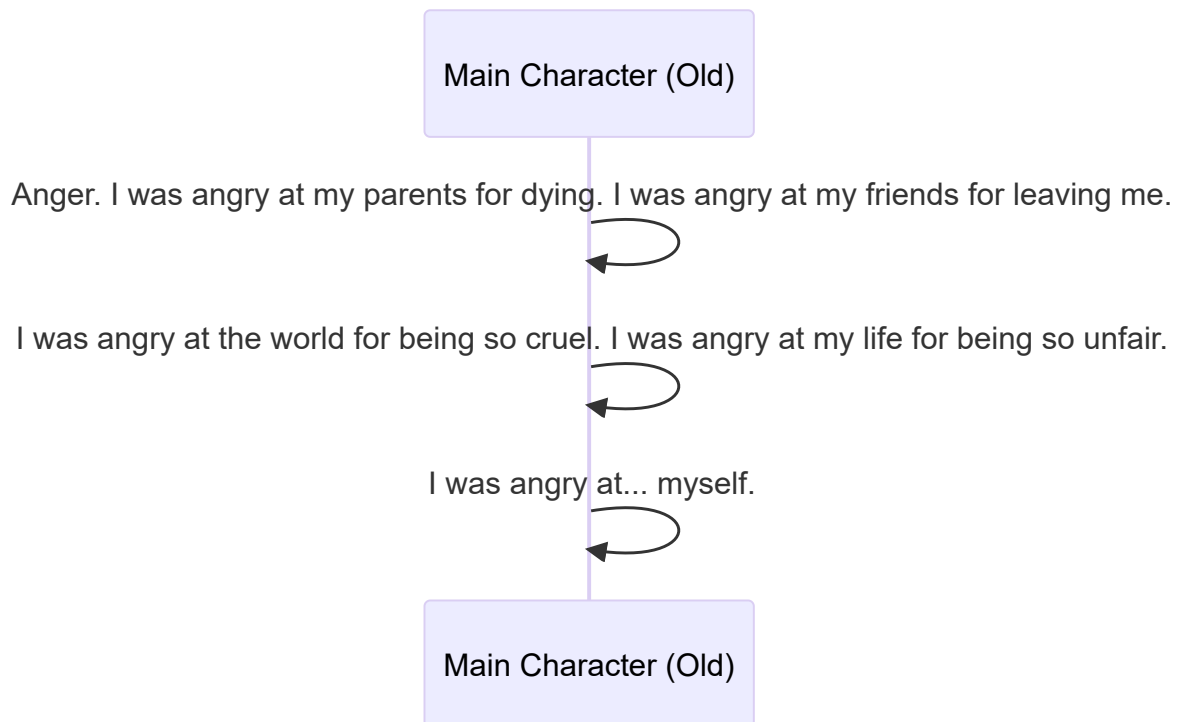
Location 29 - Street : Final sequence (Mixed) - Iteration 3

Back to Location List

Description

The third iteration of the mixed street level, where the main character's adult version is present. The player can use the loss feeling on the adult version to trigger the next age group.

Objects

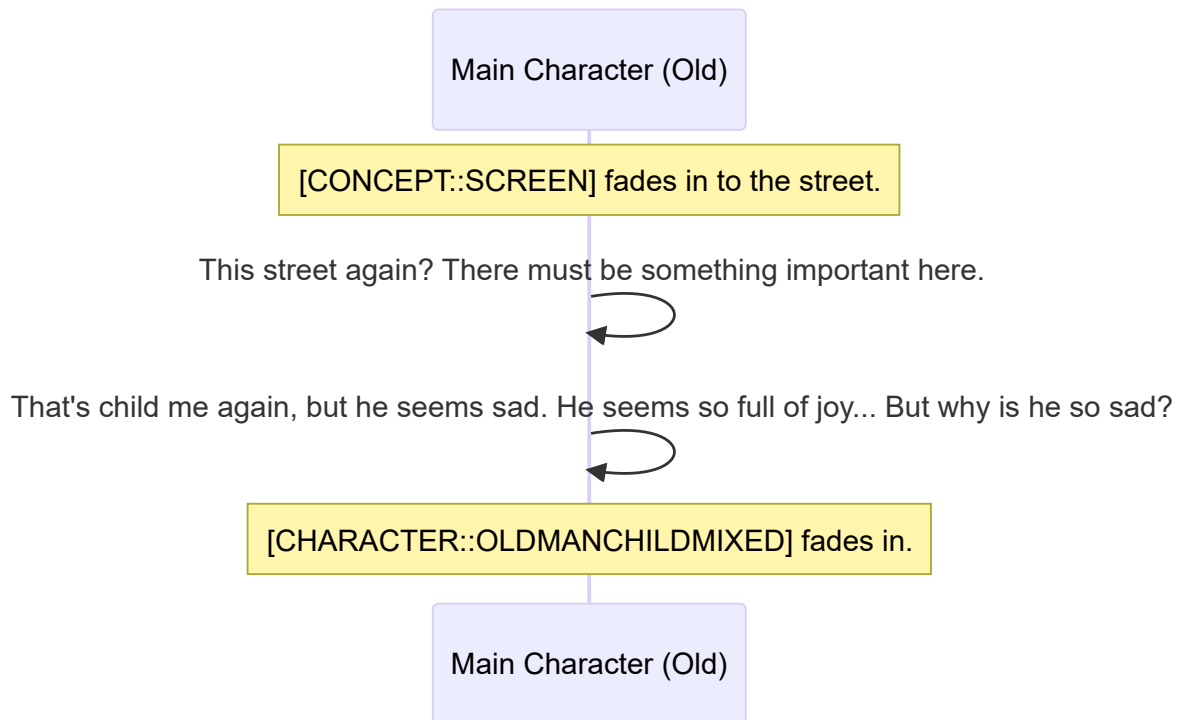| Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::OLDMANCHILDMIXEDOLDMANCHILDMIXED]	My child self. He was always happy... no, he was [afraid].	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANTEENMIXED]	My adolescent self. He was always so lonely, so [angry].	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANADULTMIXED]	My adult self. He seems so [lost]. So... empty.	[OBJECT_TYPE::INTERACTABLE]	-	• [ITEM::LOSS] => [SEQUENCE::L5_MIXED_I3_INT_LOSS_OLDMANADULT]

Global events

Event	Description
[EVENT::L5_MIXED_I3_INTRO_COMPLETED]	The player has completed the introduction to the mixed street adulthood iteration.
[EVENT::L5_MIXED_I3_INT_LOSS_OLDMANADULT_COMPLETED]	The player has used the loss feeling on the adult version.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_MIXED_I3_INTRO]	Introduction to the mixed street adulthood iteration.
[SEQUENCE::L5_MIXED_I3_INT_LOSS_OLDMANADULT]	Using the loss feeling on the adult version.

[SEQUENCE::L5_MIXED_I3_INTRO] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L5_MIXED_I3_INTRO]
Events required	[EVENT::L5_MIXED_I2_INT_ANGER_OLDMANTEEN_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L5_MIXED_I3_INTRO_COMPLETED]
Item pickup	-

Main Character (Old)

That's me... as an adult. He seems so lost. So... empty.

[CHARACTER::OLDMANADULTMIXED] fades in.

Main Character (Old)
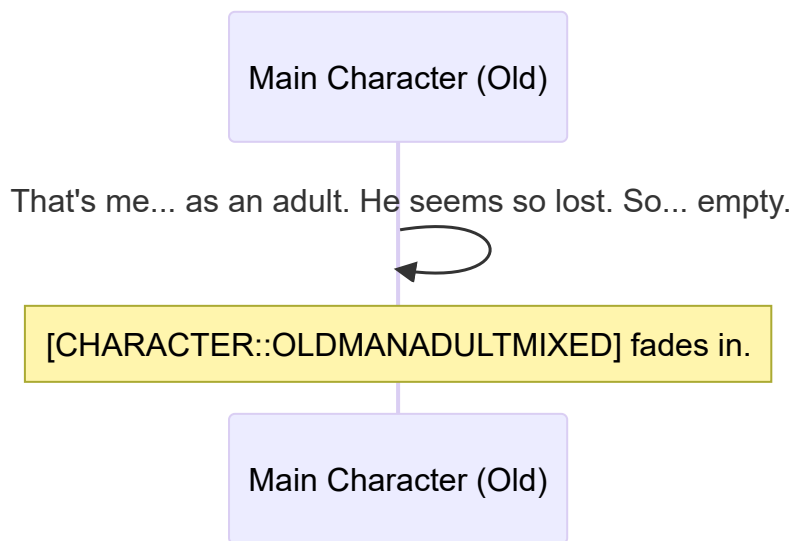
[SEQUENCE::L5_MIXED_I3_INT_LOSS_OLDMANADULT] Action sequence 2 - Using the loss feeling on the adult version

Concept	Description
Action sequence ID	[SEQUENCE::L5_MIXED_I3_INT_LOSS_OLDMANADULT]
Events required	[EVENT::L5_MIXED_I3_INTRO_COMPLETED]
Interactions required	[ITEM::LOSS] => [CHARACTER::OLDMANADULT]
Event triggered	[EVENT::L5_MIXED_I3_INT_LOSS_OLDMANADULT_COMPLETED]
Item pickup	-

```
                    ┌─────────────────────┐
                    │  Main Character (Old) │
                    └─────────────────────┘
                               │
   Loss. I lost my parents. I lost my friends. I lost my wife.
                               │  ↺
                               │
            I ended up losing... myself.
                               │  ↺
                               │
                    ┌─────────────────────┐
                    │  Main Character (Old) │
                    └─────────────────────┘
```
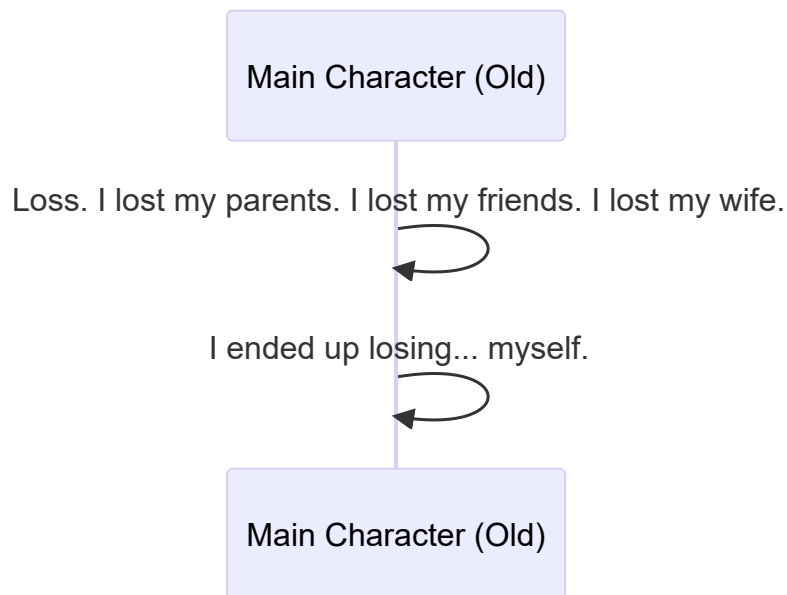
Location 30 - Street : Final sequence (Mixed) - Iteration 4

Description

The fourth iteration of the mixed street level, where the main character's old version is present. There are no interactions in this level. The player can use the acceptance feeling on the old version to trigger the hospital scene.

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
[CHARACTER::OLDMANCHILDMIXEDOLDMANCHILDMIXED]	My child self. He was always happy... no, he was [afraid].	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANTEENMIXED]	My adolescent self. He was always so lonely, so [angry].	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANADULTMIXED]	My adult self. He seems so [lost]. So... empty.	[OBJECT_TYPE::OBSERVABLE]	-	-
[CHARACTER::OLDMANOLD]	My old self. Why am I here? I don't remember being here!	[OBJECT_TYPE::INTERACTABLE]	-	• [ACTION::INTERACT] => [SEQUENCE::L5_MIXED_I4_INT_OLDMANOLD]

Global events

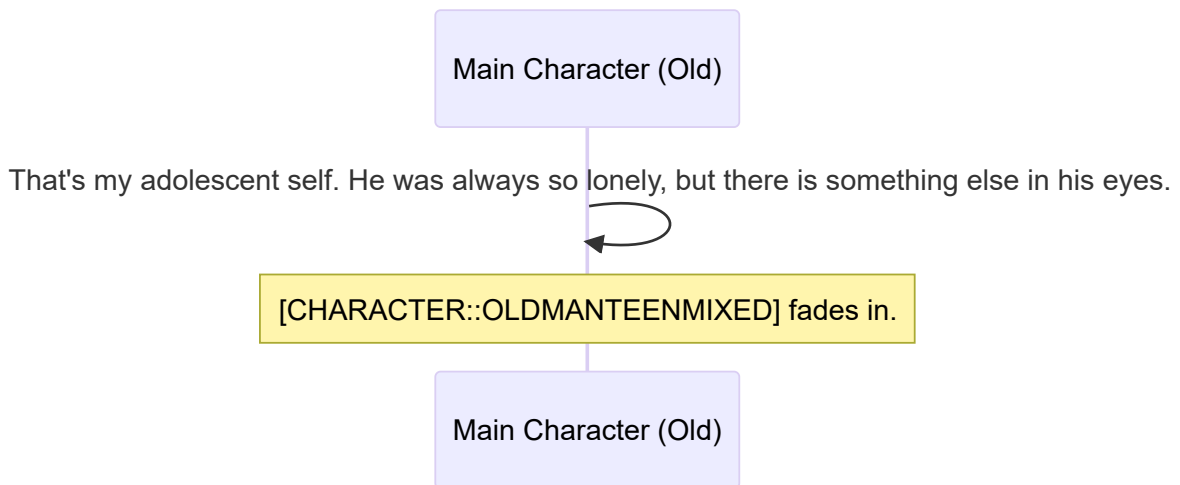| Event	Description
[EVENT::L5_MIXED_I4_INTRO_COMPLETED]	The player has completed the introduction to the mixed street old iteration.
[EVENT::L5_MIXED_COMPLETED]	The player has interacted with the old version.

Action sequences

Action sequence ID	Description
[SEQUENCE::L5_MIXED_I4_INTRO]	Introduction to the mixed street old iteration.

Action sequence ID	Description
[SEQUENCE::L5_MIXED_I4_INT_OLDMANOLD]	Interacting with the old version.

[SEQUENCE::L5_MIXED_I4_INTRO] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L5_MIXED_I4_INTRO]
Events required	[EVENT::L5_MIXED_I3_INT_LOSS_OLDMANADULT_COMPLETED]
Interactions required	-
Event triggered	[EVENT::L5_MIXED_I4_INTRO_COMPLETED]
Item pickup	-

Main Character (Old)

Huh? That's... me. Now. Why am I here? I don't remember being here!

[CHARACTER::OLDMANOLD] fades in.

Main Character (Old)
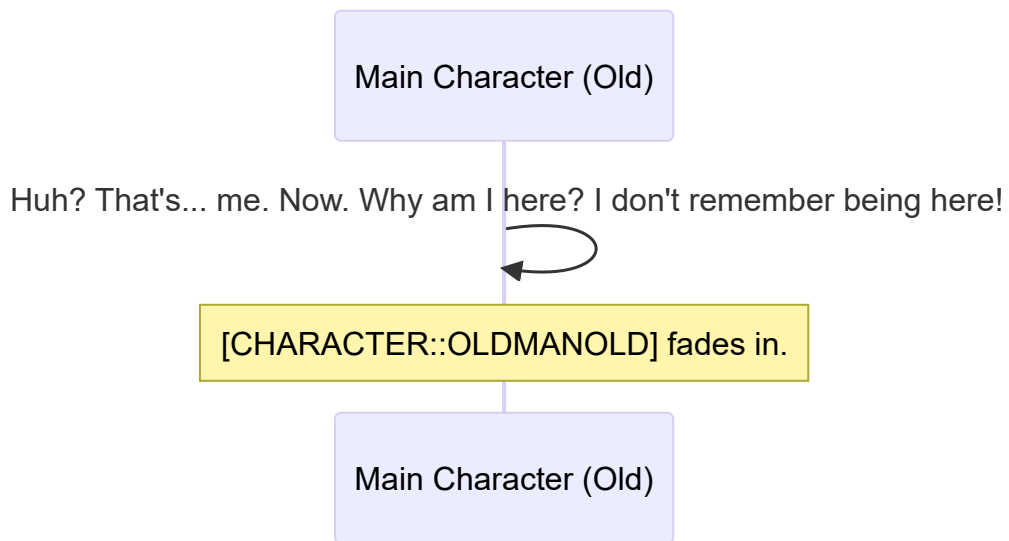
[SEQUENCE::L5_MIXED_I4_INT_OLDMANOLD] Action sequence 2 - Interacting with the old version

Concept	Description
Action sequence ID	[SEQUENCE::L5_MIXED_I4_INT_OLDMANOLD]
Events required	[EVENT::L5_MIXED_I4_INTRO_COMPLETED]
Interactions required	[ACTION::INTERACT] => [CHARACTER::OLDMANOLD]
Event triggered	[EVENT::L5_MIXED_COMPLETED]
Item pickup	-

```mermaid
sequenceDiagram
    participant Main Character (Old)
    participant Officer

    Main Character (Old) ->> Main Character (Old): I... I don't remember being here. Why am I here?
    Main Character (Old) ->> Main Character (Old): I was just telling my... she... who...?
    Officer ->> Main Character (Old): Sir, are you okay? Do you need help?
    Main Character (Old) ->> Officer: I... I don't remember... I don't remember...
    Main Character (Old) ->> Officer: I was just... I was just... I was just...
    Officer ->> Main Character (Old): Sir, what's your name? Can you tell me your name?
    Main Character (Old) ->> Officer: I... I... I...
    Officer ->> Main Character (Old): Is there anyone I can call for you? A family member? A friend?
    Main Character (Old) ->> Officer: Family...? Friends...?
    Officer ->> Officer: Dispatch, I need an ambulance at the corner of 5th and Main.
    Main Character (Old) ->> Officer: Where's she...? Where's... ah... my... no... the policewoman? She was always around here. I was just telling her...
    Officer ->> Main Character (Old): Sir, I am the only officer in this area. I have been for years.
    Main Character (Old) ->> Officer: No... No, that can't be... She was just here... I was just telling her... I was...
    Note over Main Character (Old),Officer: [CONCEPT::SCREEN] shakes.
    Main Character (Old) ->> Main Character (Old): What is happening to me...? Why can't I remember...?
    Main Character (Old) ->> Main Character (Old): Am I forgetting... myself...?
    Note over Main Character (Old),Officer: [CONCEPT::SCREEN] fades out.
```

Location 31 - Hospital : Ending

Back to Location List

Description

Objects

Object	Description	Object type	Pickable type	Uses / Interactions
-	-	-	-	-

Global events

Event	Description
[EVENT::GAME_COMPLETED]	The player has completed the prologue.

Action sequences

Action sequence ID	Description
[SEQUENCE::L7_NONE_I1_INTRO]	Introduction to the hospital scene.

[SEQUENCE::L7_NONE_I1_INTRO] Action sequence 1 - Introduction

Concept	Description
Action sequence ID	[SEQUENCE::L7_NONE_I1_INTRO]
Events required	-
Interactions required	-
Event triggered	[EVENT::GAME_COMPLETED]
Item pickup	-

Main Character (Old)	Son-in-Law (Unknown)	Son-in-law

[CONCEPT::SCREEN] fades in to the hospital.

A hospital...? Why am I here? What's happening to me?

I was in my room... I was... I just...

Dad! Easy, easy... You're in the hospital. You fell at home. Do you remember?

I fell...? At... home? I don't... I don't remember...

Who are you? Why are you here?

Dad, it's me. It's your son-in-law.

Son-in-law...? I... I don't...

[CONCEPT::SCREEN] shakes.

My daughter... Where is she?

She's... She's not here, Dad. She's...

This isn't going to get any easier, no matter how many times I do it, is it? I'm sorry, Dad.

She's... gone. She passed away a few months ago. Do you remember?

[CONCEPT::SCREEN] shakes.

No... No, that can't be... She was just here... She was... I was telling her all about my memories...

I was... I was... I was...

[CONCEPT::SCREEN] shakes.

Dad, it's okay. It's okay. Just rest now. We'll talk later.

I... I can't remember... I can't... I can't...

I can't remember her face... WHY CAN'T I REMEMBER HER FACE?!

[CONCEPT::SCREEN] shakes.

Dad, please... Please, calm down. You need to rest. You need to...

No... I need to remember... I need to remember her face... I need to remember... I need to...

[CONCEPT::SCREEN] shakes.

Here... take this. It's a picture of her... of your daughter... of my wife...

[CONCEPT::SCREEN] shows a picture of the daughter.

Ah! No... But I saw her... I saw her... I was telling her... I was...

[CONCEPT::SCREEN] fades out.

Main Character (Old)	Son-in-Law (Unknown)	Son-in-law

Annex B.7. User manual

This annex contains the manual that was created to guide players through the game.

MYSELF

User guide

About Myself: Prologue

Welcome to "Myself: Prologue," a unique puzzle adventure game that combines classic point-and-click mechanics with engaging casual puzzles. This game offers a rich narrative experience, focusing on the themes of mental health and aging. Through the eyes of an elderly protagonist, players will explore fragmented memories, solve intricate puzzles, and uncover the story behind distorted recollections.

Objective

The primary objective of "Myself: Prologue" is to piece together the protagonist's fragmented memories, gaining a deeper understanding of his life and the challenges posed by dementia. By navigating through different ages, interacting with various elements, and solving minigames, players will unlock new scenes and gradually reveal the mystery of the protagonist's past.

Main menu

The main menu is composed by the following options:

- Continue

- New game

- Options (volume control and difficulty of minigames)

- Credits

- Quit game

Interact

- The outline of interactable object glows when players hover over them.

- Use the mouse left click to interact.

- Any collectibles will be picked automatically when interacting.

Use

- **Holding down** the right click of the mouse over an interactable object opens the radial menú.
- **Releasing** the button over an item tries to use it.

Switch ages

- When on the album, dragging a photography to another age will make the level change.
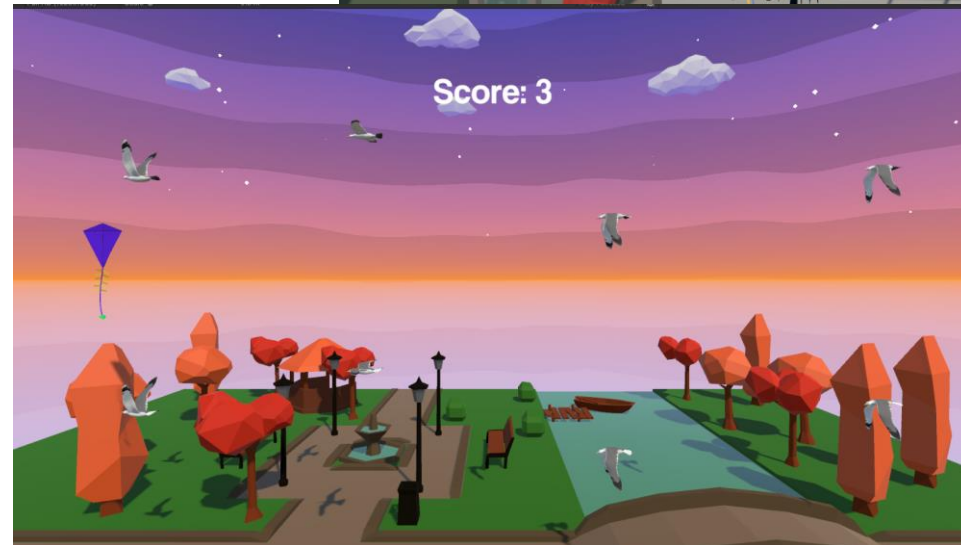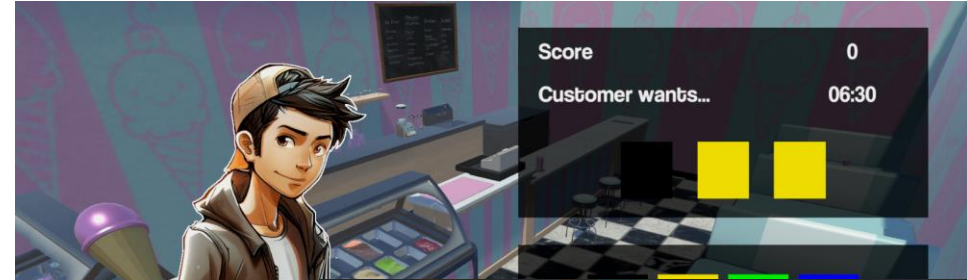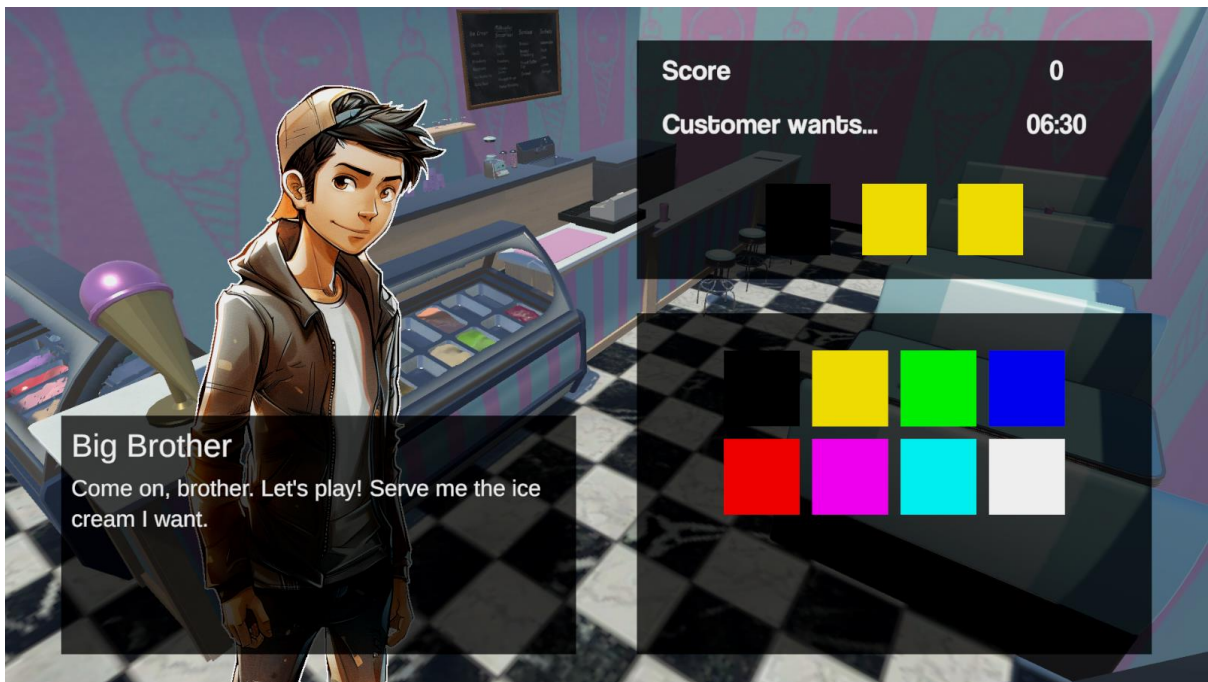
Minigames

- Each minigame plays different. Listen carefully to the other characters!

Annex C: Screenshots

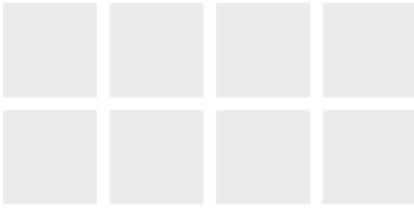This annex contains a set of screenshots of different key levels or features of "Myself: Prologue".
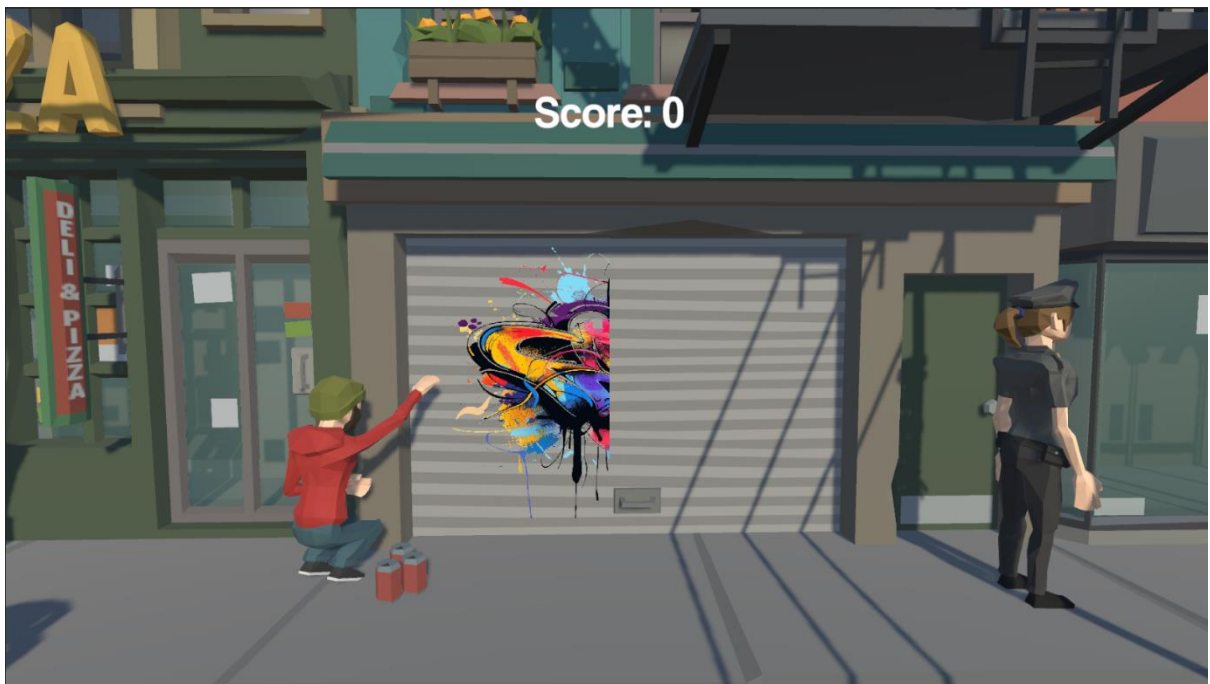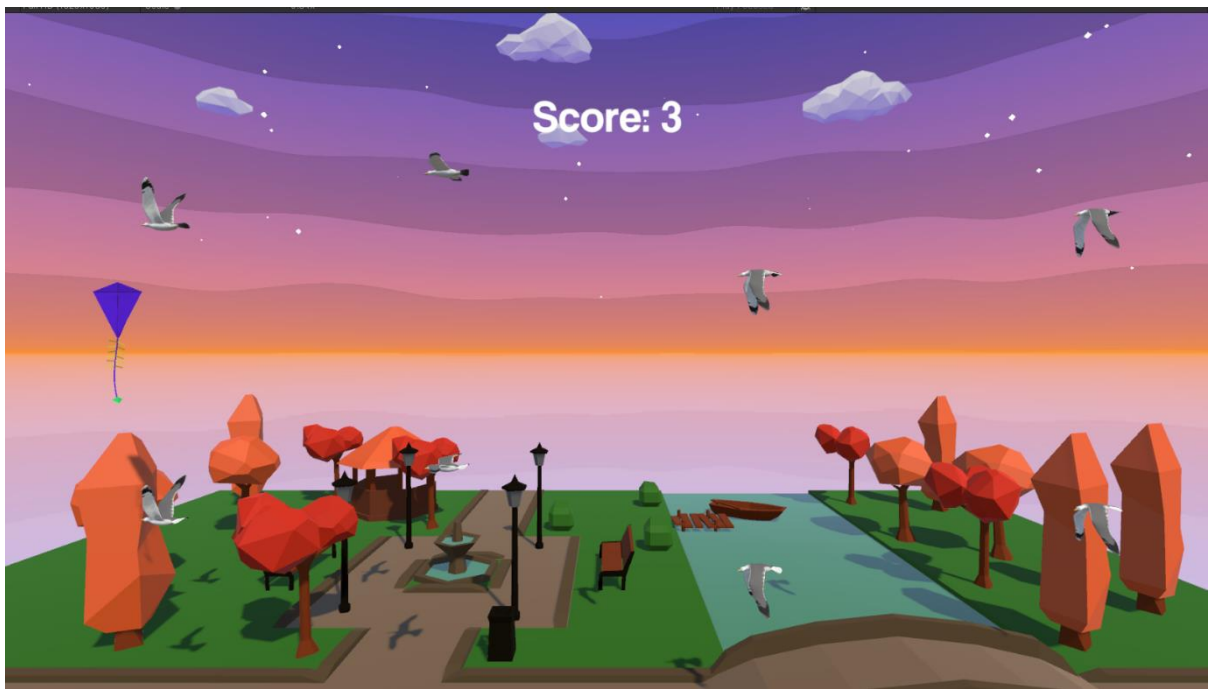

Ice cream figure

Childhood

Adolescence

Adulthood

Old age

Annex D: Curriculum Vitae

This annex contains a copy of the author's curriculum vitae.

Pasión por los lenguajes, tanto naturales como formales. Traductor y localizador por formación, programador por vocación. Mi vida está entre libros y líneas de código.

Salvador Banderas Rovira

Experto en tecnología educativa
y tecnologías de la traducción

📅 23 de julio de 1986

📞 +34 619 88 62 08

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in salvadorbanderas

🐦 ragart_

github ragart

💼 EXPERIENCIA DESTACADA

Febrero 2022 - Actualidad
Director de tecnología educativa y traducción
Fundación Universitaria Iberoamericana

Liderazgo de la evolución del modelo tecnopedagógico de la institución. Captación de necesidades de los diferentes actores del proceso de enseñanza-aprendizaje y de requisitos de internacionalización y localización. Definición de procesos y homogeneización de los flujos de trabajo.

Enero 2011 - Actualidad
Gestor de proyectos europeos
Fundación Universitaria Iberoamericana

Gestión y ejecución de proyectos a nivel europeo. Coordinación de equipos de trabajo. Organización de eventos.

DAISS2 (Leonardo Da Vinci UK/13/LLP-LdV/TOI-605)
SUCCEED (Erasmus+ 2016-1-LU01-KA202-013831)
ESSENCE (Erasmus+ 2017-1-DK01-KA202-034276)
LOVEDISTANCE (Erasmus+ 609949-EPP-1-2019-1-PT-EPPKA2-CBHE-JP)
DIGITALTA (Erasmus+ ERASMUS-EDU-2021-PEX-TEACH-ACA 101055620)

Julio 2015 - Febrero 2022
Responsable de tecnologías de la traducción
Fundación Universitaria Iberoamericana

Mantenimiento funcional de las tecnologías utilizadas por los departamentos de traducción. Desarrollo de complementos y soluciones lingüísticas a medida. Implementación de la herramienta RWS GroupShare.

Septiembre 2014 - Julio 2016
Autor
Universidad Europea del Atlántico

Autor de contenidos académicos relacionados con la aplicación de las tecnologías de la información y la comunicación a la traducción.

Junio 2011 - Julio 2015
Coordinador de traducciones
Fundación Universitaria Iberoamericana

Coordinación de proyectos entre los diferentes departamentos de traducción. Definición de procesos y homogeneización de los flujos de trabajo. Implementación inicial de la herramienta RWS Trados.

Abril 2010 - Enero 2022
Responsable de tecnología educativa
Fundación Universitaria Iberoamericana

Implementación del LMS Moodle a nivel técnico y administrativo como campus virtual. Desarrollo de complementos y nuevas funcionalidades. Administración de sistemas. Optimización de consultas. Diseño y programación de soluciones de interoperabilidad. Coordinación de equipos de trabajo.

Octubre 2008 - Abril 2010
Traductor
Fundación Universitaria Iberoamericana

Traducción, revisión y corrección de textos, localización Web y de software y adaptación audiovisual (ES <> CAT, ES <> EN, CAT <> EN, FR > ES).

🎓 EDUCACIÓN

2022 - Actualidad
Máster universitario en Diseño y Programación de Videojuegos
Universitat Oberta de Catalunya

2004 - 2008
Licenciatura en Traducción e Interpretación
Universitat Pompeu Fabra

Español, catalán, inglés y francés. Itinerarios humanístico-literario y científico-técnico. Especializado en lengua española y lingüística computacional.

🗛 IDIOMAS

100%	100%	100%	50%
ESPAÑOL	CATALÁN	INGLÉS	FRANCÉS
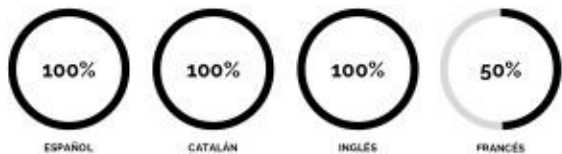
🛠 TECNOLOGÍAS

PHP 7-8 / Laravel / Lumen	★★★★★	> 10 años
Python 3	★★	1-2 años
MySQL / MariaDB	★★★★	> 10 años
HTML5 / CSS3 / Bootstrap	★★★★★	> 10 años
JavaScript / TypeScript	★★★★★	> 5 años
Sysadmin / Apache 2.4 / IIS10	★★★★	> 5 años
RESTful API / OpenAPI	★★★★	> 5 años
Unity / C# / C++	★★★	3-4 años

⚙ OTRAS HERRAMIENTAS INFORMÁTICAS

Gestión del aprendizaje (Moodle)
Gestión de contenidos (Wordpress)
Gestión de proyectos (PM², Agile)
Traducción asistida (Trados, OmegaT)
Autoría de contenidos (Publisher, AI)

Diseño gráfico (Photoshop, GIMP)
Control de versiones (Git)
Contenerización (Docker)
CI/CD (DevOps, Travis, PHPUnit)
Virtualización (VMWare)

🧩 INTERESES

ESCRITURA   VIDEOJUEGOS   PROGRAMACIÓN

Annex E: Survey Results

This annex contains all the answers to the survey that were received during the

Survey 1

What is your age?	Under 18	18-24	25-34	35-44	**45-54**	55-64	65 or older	Prefer not to say
What gender do you identify with?	**Male**		Female		Prefer not to say		Other	
What definition suits you best?	**I work or study in the field of video games development or design**		I work or study in the field of video games development or design		Other			
How would you describe your gaming experience level?	Beginner		Intermediate		Advanced		**Expert**	
How engaging did you find the storyline?	1		2		3		4	**5**
How relatable did you find the main character (the old man)?	1		2		3		**4**	5
The main theme of the game is the representation of mental illness, particularly dementia, through gameplay and narrative. How effectively did the game convey this theme?	1		2		3		4	**5**
How would you rate the emotional impact of the game?	1		2		3		4	**5**
Were there any particular scenes or moments that stood out to you? If so, which ones and why?	The shocks							
The game features the DeLuca Effect (representing multiple	1		2		3		4	**5**

temporalities in the same scene) as a narrative tool. Did you find it contributes effectively to the storytelling?					
Did you find the pacing of the narrative appropriate?	1	2	**3**	4	5
How intuitive were the game controls and mechanics?	1	**2**	3	4	5
Were the instructions and tutorials clear and helpful?	1	2	3	4	**5**
How enjoyable were the minigames (e.g., ice cream-serving, kite-flying)?	1	2	3	4	**5**
How well did the minigames integrate with the overall narrative?	1	2	3	4	**5**
Did you notice any dissonance between the game mechanics and the story? If so, did it reinforce or weaken the narrative?	I noticed dissonance, and it reinforced the narrative		I noticed dissonance, and it weakened the narrative	**I did not notice any dissonance**	
Overall, how satisfied were you with "Myself: Prologue"?	1	2	3	4	**5**
What did you like most about "Myself: Prologue"?					
What did you like least about "Myself: Prologue"?					
Any additional comments or feedback?					
Would you be	1	2	3	4	5

interested in playing the full game based on this prologue?					

Survey 2

What is your age?	Under 18	18-24	**25-34**	35-44	45-54	55-64	65 or older	Prefer not to say
What gender do you identify with?	**Male**			Female		Prefer not to say		Other
What definition suits you best?	**I work or study in the field of video games development or design**			I work in the field of mental health, caregiving and/or geriatrics		Other		
How would you describe your gaming experience level?	Beginner		**Intermediate**		Advanced		Expert	
How engaging did you find the storyline?	1		2		3		4	**5**
How relatable did you find the main character (the old man)?	1		**2**		3		4	5
The main theme of the game is the representation of mental illness, particularly dementia, through gameplay and narrative. How effectively did the game convey this theme?	1		2		3		**4**	5
How would you rate the emotional impact of the game?	1		2		3		**4**	5
Were there any particular scenes or moments that stood out to you? If so, which ones and why?	La escena final, por ser el lazo de todo lo que está pasando. Tiene la función del giro dramático final para sorprender y lo hace.							
The game features the DeLuca Effect (representing	1		2		3		**4**	5

multiple temporalities in the same scene) as a narrative tool. Did you find it contributes effectively to the storytelling?					
Did you find the pacing of the narrative appropriate?	1	2	3	4	**5**
How intuitive were the game controls and mechanics?	1	2	3	**4**	5
Were the instructions and tutorials clear and helpful?	1	2	3	**4**	5
How enjoyable were the minigames (e.g., ice cream-serving, kite-flying)?	1	2	**3**	4	5
How well did the minigames integrate with the overall narrative?	1	2	**3**	4	5
Did you notice any dissonance between the game mechanics and the story? If so, did it reinforce or weaken the narrative?	I noticed dissonance, and it reinforced the narrative		**I noticed dissonance, and it weakened the narrative**	I did not notice any dissonance	
Overall, how satisfied were you with "Myself: Prologue"?	1	2	3	**4**	5
What did you like most about "Myself: Prologue"?	Es un juego eminentemente narrativo y eso lo hace muy bien. Creo que pega bastante una novela visual con hablar de la demencia.				
What did you like least about "Myself: Prologue"?	La apertura del menú de interacción va un poco mal. Si pasas el ratón por encima de otras opciones cuando quieres seleccionar un elemento del menú secundario, te desaparece. Simplemente, hacer que si mantienes pulsado el botón derecho, no despliegue ningún menú más que el que ya está abierto.				
Any additional comments or feedback?	En la versión web no puedes darle a Esc. porque se cierra el juego. También hay una vez que el niño con el que interactuar estaba justo sobre la caja de texto y se buggeaba un poco el raycast del ratón. Ten en cuenta que no estoy muy acostumbrado a las novelas visuales. Me gustan como idea pero al				

	final acabo dando muchas vueltas porque no lo pillo y me canso.				
Would you be interested in playing the full game based on this prologue?	1	2	3	4	**5**

Survey 3

What is your age?	Under 18	18-24	**25-34**	35-44	45-54	55-64	65 or older	Prefer not to say
What gender do you identify with?	**Male**		Female		Prefer not to say		Other	
What definition suits you best?	I work or study in the field of video games development or design		**I work in the field of mental health, caregiving and/or geriatrics**		Other			
How would you describe your gaming experience level?	Beginner		Intermediate		Advanced		**Expert**	
How engaging did you find the storyline?	1		2		3		**4**	5
How relatable did you find the main character (the old man)?	1		2		**3**		4	5
The main theme of the game is the representation of mental illness, particularly dementia, through gameplay and narrative. How effectively did the game convey this theme?	1		2		3		**4**	5
How would you rate the emotional impact of the game?	1		2		**3**		4	5
Were there any particular scenes or moments that stood out to you? If so, which ones and why?								
The game features	1		2		3		**4**	5

the DeLuca Effect (representing multiple temporalities in the same scene) as a narrative tool. Did you find it contributes effectively to the storytelling?					
Did you find the pacing of the narrative appropriate?	1	2	3	**4**	5
How intuitive were the game controls and mechanics?	1	2	**3**	4	5
Were the instructions and tutorials clear and helpful?	1	2	3	**4**	5
How enjoyable were the minigames (e.g., ice cream-serving, kite-flying)?	1	2	**3**	4	5
How well did the minigames integrate with the overall narrative?	1	2	3	4	**5**
Did you notice any dissonance between the game mechanics and the story? If so, did it reinforce or weaken the narrative?	**I noticed dissonance, and it reinforced the narrative**		I noticed dissonance, and it weakened the narrative	I did not notice any dissonance	
Overall, how satisfied were you with "Myself: Prologue"?	1	2	3	**4**	5
What did you like most about "Myself: Prologue"?					
What did you like least about "Myself: Prologue"?					
Any additional					

comments or feedback?					
Would you be interested in playing the full game based on this prologue?	1	**2**	3	4	5

Survey 4

What is your age?	Under 18	18-24	25-34	**35-44**	45-54	55-64	65 or older	Prefer not to say
What gender do you identify with?	**Male**		Female		Prefer not to say		Other	
What definition suits you best?	I work or study in the field of video games development or design		I work in the field of mental health, caregiving and/or geriatrics		**Other**			
How would you describe your gaming experience level?	Beginner		Intermediate		Advanced		**Expert**	

How engaging did you find the storyline?	1	2	3	4	**5**
How relatable did you find the main character (the old man)?	1	2	**3**	4	5
The main theme of the game is the representation of mental illness, particularly dementia, through gameplay and narrative. How effectively did the game convey this theme?	1	2	3	4	**5**
How would you rate the emotional impact of the game?	1	2	3	**4**	5
Were there any particular scenes or moments that stood out to you? If so, which ones and why?					

The game features the DeLuca Effect (representing multiple temporalities in the same scene) as a narrative tool. Did you find it contributes effectively to the storytelling?	1	**2**	3	4	5
Did you find the pacing of the narrative appropriate?	1	2	3	**4**	5
How intuitive were the game controls and mechanics?	1	**2**	3	4	5
Were the instructions and tutorials clear and helpful?	1	2	3	**4**	5
How enjoyable were the minigames (e.g., ice cream-serving, kite-flying)?	1	2	3	**4**	5
How well did the minigames integrate with the overall narrative?	1	2	3	**4**	5
Did you notice any dissonance between the game mechanics and the story? If so, did it reinforce or weaken the narrative?	I noticed dissonance, and it reinforced the narrative		I noticed dissonance, and it weakened the narrative	**I did not notice any dissonance**	
Overall, how satisfied were you with "Myself: Prologue"?	1	2	3	**4**	5
What did you like most about "Myself: Prologue"?	Tiene una muy buena premisa, y mucha valentía al tratar temas aún tabús para demasiada gente				
What did you like least about "Myself: Prologue"?	Los menús radiales me han resultado un tanto confusos, puede ser por la versión del juego, pero me cuesta seleccionar la sección que deseo. Como jugador de aventuras gráficas clásicas me resulta mucho más cómodo un menú contextual o de acciones.				

Any additional comments or feedback?	Sigue así, Salva, el juego es genial!				
Would you be interested in playing the full game based on this prologue?	1	2	3	4	**5**

Survey 5

What is your age?	Under 18	18-24	**25-34**	35-44	45-54	55-64	65 or older	Prefer not to say
What gender do you identify with?	**Male**		Female		Prefer not to say		Other	
What definition suits you best?	**I work or study in the field of video games development or design**		I work in the field of mental health, caregiving and/or geriatrics		Other			
How would you describe your gaming experience level?	Beginner		Intermediate		**Advanced**		Expert	
How engaging did you find the storyline?	1		2		3		4	**5**
How relatable did you find the main character (the old man)?	1		2		**3**		4	5
The main theme of the game is the representation of mental illness, particularly dementia, through gameplay and narrative. How effectively did the game convey this theme?	1		2		3		4	**5**
How would you rate the emotional impact of the game?	1		2		3		4	**5**
Were there any particular scenes or moments that stood out to you? If so, which ones and	La primera escena en la heladería ha sido especialmente interesante, con la representación del puzzle como una forma de evasión para escapar de las malas memorias del pasado. La aparición de las interferencias de la figura oscura también me han llamado mucho la atención.							

why?					
The game features the DeLuca Effect (representing multiple temporalities in the same scene) as a narrative tool. Did you find it contributes effectively to the storytelling?	1	2	3	4	**5**
Did you find the pacing of the narrative appropriate?	1	2	3	**4**	5
How intuitive were the game controls and mechanics?	1	2	**3**	4	5
Were the instructions and tutorials clear and helpful?	1	2	**3**	4	5
How enjoyable were the minigames (e.g., ice cream-serving, kite-flying)?	1	2	3	4	**5**
How well did the minigames integrate with the overall narrative?	1	2	3	4	**5**
Did you notice any dissonance between the game mechanics and the story? If so, did it reinforce or weaken the narrative?	**I noticed dissonance, and it reinforced the narrative**		I noticed dissonance, and it weakened the narrative	I did not notice any dissonance	
Overall, how satisfied were you with "Myself: Prologue"?	1	2	3	4	**5**
What did you like most about "Myself: Prologue"?	La idea base, como se explora el pasado del anciano desde el gameplay y el uso de minijuegos integrados en la historia.				
What did you like least about "Myself:	Probablemente los controles del menú radial, a veces es complicado arrastras el ratón sin que se cierre.				

Prologue"?					
Any additional comments or feedback?	Sería interesante establecer un menú de pistas. Soy un muy mal jugador de juegos de puzles pero siendo la historia tan interesante estaría genial poder obtener pistas sobre como seguir progresando para no quedarme atascado y disfrutar de la narrativa y los minijuegos.				
Would you be interested in playing the full game based on this prologue?	1	2	3	4	**5**

Survey 6

What is your age?	Under 18	18-24	**25-34**	35-44	45-54	55-64	65 or older	Prefer not to say
What gender do you identify with?	Male		**Female**		Prefer not to say		Other	
What definition suits you best?	I work or study in the field of video games development or design		I work in the field of mental health, caregiving and/or geriatrics		**Other**			
How would you describe your gaming experience level?	**Beginner**		Intermediate		Advanced		Expert	
How engaging did you find the storyline?	1		2		3		4	**5**
How relatable did you find the main character (the old man)?	1		2		**3**		4	5
The main theme of the game is the representation of mental illness, particularly dementia, through gameplay and narrative. How effectively did the game convey this theme?	1		2		3		**4**	5
How would you rate the emotional impact of the game?	1		2		3		4	**5**
Were there any particular scenes or moments that stood out to you? If so,								

which ones and why?				
The game features the DeLuca Effect (representing multiple temporalities in the same scene) as a narrative tool. Did you find it contributes effectively to the storytelling?	1	2	3	**4**	5
Did you find the pacing of the narrative appropriate?	1	2	3	**4**	5
How intuitive were the game controls and mechanics?	1	2	3	**4**	5
Were the instructions and tutorials clear and helpful?	1	2	3	**4**	5
How enjoyable were the minigames (e.g., ice cream-serving, kite-flying)?	1	2	3	4	**5**
How well did the minigames integrate with the overall narrative?	1	2	3	4	**5**
Did you notice any dissonance between the game mechanics and the story? If so, did it reinforce or weaken the narrative?	I noticed dissonance, and it reinforced the narrative		I noticed dissonance, and it weakened the narrative	**I did not notice any dissonance**	
Overall, how satisfied were you with "Myself: Prologue"?	1	2	3	**4**	5
What did you like most about "Myself: Prologue"?				
What did you like				

least about "Myself: Prologue"?					
Any additional comments or feedback?					
Would you be interested in playing the full game based on this prologue?	1	2	3	**4**	5

Survey 7

What is your age?	Under 18	18-24	**25-34**	35-44	45-54	55-64	65 or older	Prefer not to say
What gender do you identify with?	**Male**		Female		Prefer not to say		Other	

What definition suits you best?	I work or study in the field of video games development or design	I work in the field of mental health, caregiving and/or geriatrics	**Other**
How would you describe your gaming experience level?	Beginner	Intermediate	Advanced	**Expert**

How engaging did you find the storyline?	1	2	3	4	**5**
How relatable did you find the main character (the old man)?	1	2	**3**	4	5
The main theme of the game is the representation of mental illness, particularly dementia, through gameplay and narrative. How effectively did the game convey this theme?	1	2	3	4	**5**
How would you rate the emotional impact of the game?	1	2	3	4	**5**
Were there any particular scenes or moments that stood					

out to you? If so, which ones and why?					
The game features the DeLuca Effect (representing multiple temporalities in the same scene) as a narrative tool. Did you find it contributes effectively to the storytelling?	1	2	3	4	**5**
Did you find the pacing of the narrative appropriate?	1	2	3	4	**5**
How intuitive were the game controls and mechanics?	1	2	3	4	**5**
Were the instructions and tutorials clear and helpful?	1	2	3	4	**5**
How enjoyable were the minigames (e.g., ice cream-serving, kite-flying)?	1	2	3	4	**5**
How well did the minigames integrate with the overall narrative?	1	2	3	4	**5**
Did you notice any dissonance between the game mechanics and the story? If so, did it reinforce or weaken the narrative?	**I noticed dissonance, and it reinforced the narrative**		I noticed dissonance, and it weakened the narrative	I did not notice any dissonance	
Overall, how satisfied were you with "Myself: Prologue"?	1	2	3	4	**5**
What did you like most about "Myself: Prologue"?	Me ha gustado muchísimo la mecánica de poder jugar con las edades, es decir, que pueda mover las fotografías según su etapa y que sea una escena diferente. Además, el trasfondo narrativo que tiene para simular una enfermedad mental y cómo ve el mundo esa persona, me ha encantado.				

What did you like least about "Myself: Prologue"?					
Any additional comments or feedback?	La ruleta podría ser un desplegable en el que puedas interactuar con el teclado y sea fijo				
Would you be interested in playing the full game based on this prologue?	1	2	3	4	**5**