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WSOA3003A – Game Design 3A – Group 8

# Exam Game - Reflection

The intended game according to our project plan was to create a crime-solving game where the player interacts with various clues and evidence pieces as well as interrogates the suspects of the crime. Once they have deduced who it might be, they are then meant to accuse the criminal and get a rating on their detective skills.

The game was meant to contain four levels with the first being a tutorial for the player to get used to the mechanics and game play. The game was meant to evoke the feeling of the player being a detective through the narrative-based investigation.

The three puzzles in our group project plan were matching fingerprints by clicking and dragging the given fingerprint to the matching, correct one. The rotating images puzzles was to click on various pieces of something, such as a camera screenshot of the crime scene, to complete it. The last mini game was matching the suspect's face drawing/description to the suspects real face.

Planning this game in a group was difficult because of how difficult it was to account for everyone's abilities and settling on something that was up to standard. It was also difficult for certain members to voice their opinions because of conflicts that would arise as a result of this. Another complicated aspect of working in a group was predicting time schedules because each member had different tasks outside of creating this game.

In terms of my changes to our group project plan and general plan to make the game, scaled the game down immensely in terms of the number of levels this prototype would contain because, we had initially over scoped, and I was certain that I would not be able to create so many detailed levels by the deadline. I decided to do a single level because I could focus on the narrative in the game more. I also decided to do two out of the three puzzles/mini games because the third one, matching suspect faces, did not fit into the narrative I had planned for my game.

In terms of the use of the UV light from the group project plan, I changed this to using a magnifying glass in a mini game/puzzle instead of using the light to find fingerprints on the tablecloth. I felt that this changed fitted more with my narrative because the detective's

character is an old man and would more likely have a magnifying glass at his house. We had left our narrative of the game open as well as art style which allowed for me to choose what I wanted to do.

With the evidence list, I did not include one because I only had five clues and evidence in the scene that were always visible while in the scene. I found that it was not necessary because the player could keep track of the information on their own during playtesting because they mainly kept track of names more than evidence types.

Because of this, I was able to make my theme cute and silly instead of something serious as intended by some of the other group members. I did this because it was easier for me to make a narrative-based game that was less serious. One of my design goals was adding humour into the narrative as far as I could. I also decided not to focus too much on the art in the game too much unless I had enough time to do so or felt it was necessary at a later point during my developmental process.

I planned on creating a branched narrative in the interrogation but found that it was difficult to code and create given the time limit because of how many questions I wanted to ask and how many suspects I wanted in the game. I also decided not to do this because, while attempting it and through playtesting, players found it too easy to solve because of the lack in variety in suspects. After removing it and making the interrogation less choice based, they also found that even though there was not a lot of agency, it was nice to see the characters' personalities. During future iterations on the game, I would like to balance this and add more agency for the player to make it more dynamic for the player.

While creating this dialogue section, I decided to disable all the buttons that the player had interacted with previously so that they can easily keep track of which ones they had used to gather more information from. For the final version of the game thus far, I created a button that allows the player to change their mind regarding which NPC character they wanted to question.

The way in which I worded the dialogue during the interrogation section was by assigning the NPC characters different roles as done by the narrator in the game Mafia/Werewolf. In Mafia, there is a separate narrator who assigns various roles to the other players. Some

of these roles that inspired me were the roles of the detective, doctor, troublemaker, innocent, and the mafia itself. I made Stuart's dialogue seem like a bad mafia player's style of talking and made Edward the doctor who saves himself and Patrick throughout the dialogue. I also made Samuel the troublemaker who stirred conflict among the other characters and blamed them as well as Patrick who was the innocent and angry character that hated being involved in this investigation.

I initially did not include using a rating system in my game but during the later stages of development, I felt that my game's ending was not as satisfying based on playtesting. I then decided to implement it, which resulted in some of the playertesters feeling more satisfied or disappointed with their rating. I wanted this ending to be impacting, hence I felt that this change worked because it resulted in a stronger reaction from the player, regardless of it being positive or negative.

In the crime scene I wanted to make the buttons of the items that the player has already interacted with disabled, but they would become interactable every time the player moved to another scene and came back. Not being able to do this resulted in other issues that can be fixed during future iterations. One of these issues was that if the player accidentally went to do one of the mini games/puzzles again, they would be stuck in that scene unless they quit the game entirely. I initially tried to create the mini games/puzzles and the crime scene in a single scene because it would have made it easier to not have issues in terms of the disabling buttons in the crime scene, but it could have come with unforeseen issues, hence this can be tested during future iterations.

While playtesting the game during one of the initial stages of developing the game, I got feedback that it was not obvious where the player should use the magnifying glass (as seen in Figure 1). I changed this so that the player knew exactly where the fingerprint was by making the fingerprints have a black silhouette. Compared to our group's project plan, it was intended to use this feature of the magnifying glass as a UV light. For my narrative, this did not make sense, hence I changed it into a magnifying glass that functioned in a similar way.

With the rotating pieces aspect, I made it such that the player's moves count towards the ending rating in that the number of clicks matter. This move counter is currently buggy as

it does not count every click the player makes and instead only increases if the player. In future iterations this can be fixed to make it more accurate, or it can be changed to use a timer to allow for a more accurate and pressuring element to the game.

I decided to make my art one of my more important features because I realised during the development how important my evidence and clue pieces were. I decided to dedicate more time towards it, instead of only dedicating a day for it, I dedicated three days for it. I initially planned on using simpler art assets or free assets but decided that creating my own would provide more consistency in the game as well as improve the aesthetics of the game as they relate more closely to the narrative.

Majority of the elements, such as interacting with the crime scene, solving puzzles, and interrogating suspects are in my game because I felt that implementing them would allow for my game to fit our intended theme as a detective, crime-solving game as well as my making the game a narrative-based game.

I did not intend to make the game replayable because I felt that constantly replaying levels with similar themes of cute and silly could potentially become boring. This can be determined through future iterations where more potential levels are created but for now, I intended to make my game have no replayability. Another reason for not creating more levels is because, given that the game is a detective themed game, it is easy to implement serious themes, which is something I did not want.

During playtesting, many players really enjoyed the puzzle/mini-game aspects of the game. During future iterations, at least one more mini game can be implemented to allow the player to have more to do in order to solve the case. The narrative can also be tweaked a little to make it more difficult to solve because there were many playtesters who solved the game with a rating of either 10/10 or 7/10

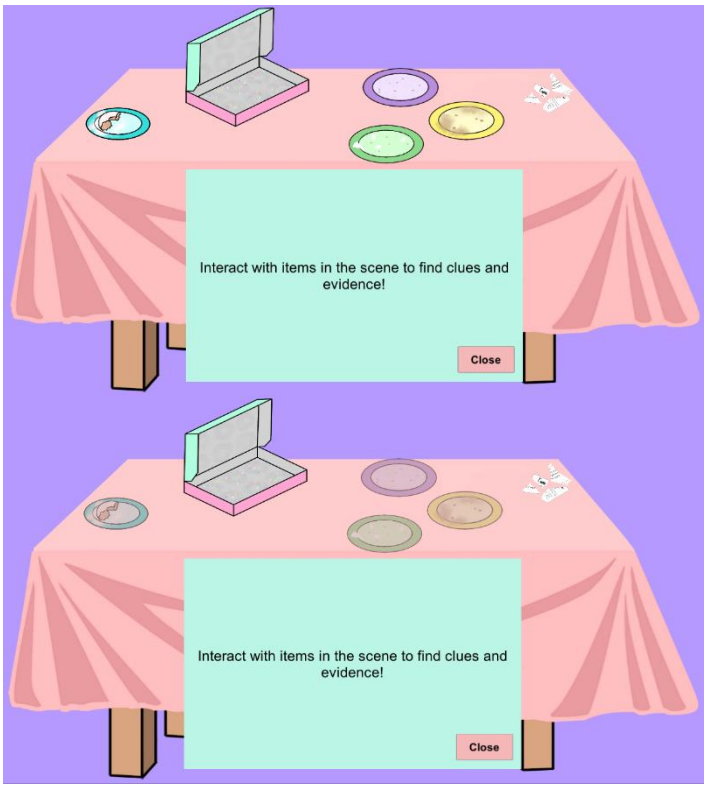



*Figure 1: What the Disabling of objects that the player has interacted with would look like if it worked.*

# New Project Plan

## Introduction

### Game concept

Effective Detective is a simple 2D crime-solving game where the player interacts with various clues and pieces of evidence in a crime scene, completes mini games and interrogates suspects to be able to correctly identify the criminal from four suspects. One of the design goals for this game are to give the player the feeling of being a detective and allowing them to do so through a narrative-based investigation. The second design goal is to create a game with a cute and silly theme that is constant throughout the various phases of the game and that adds humour to the game. The game's focus should not be placed on asset creation, rather the completion of the game and narrative.

The player will be placed in a crime scene with evidence that will contain the evidence pieces that the player needs to use to solve the case. At least two of these evidence pieces should lead the player to mini games/puzzles, while the rest should give small clues regarding the culprit. After collecting the evidence and clues, the player should then interrogate the suspects and give the player at least two choices in questions to ask the

player. Thereafter, they can accuse the suspect that they think committed the crime and get a rating on their detective skills.

### Design methodology and estimated timeline.

The game will be made using the iterative design process. The methodology helps with quick prototyping in the development process so that moving to the next iteration can be efficient. The game will be made within 19 days, starting from the 8th of June 2021, and ending on the 24 June 2021. Iterations will be made depending on certain tasks as noted in the scheduling and time estimates.

### Project outcomes and Requirements

The game should encourage the player to solve cases as effectively as possible and evoke the feeling of being a detective. Given the time constraints, the game should be kept simple and should be designed around this as well as the design goals set above, while keeping the cute and silly detective theme in mind. The game should only use the mouse for interactions with the game's system. Before beginning the next set of iterations, the previous iterations should be playtested, either through external or internal playtesting.

The game's narrative should follow that of old men missing their days being detectives who decide to have a day dedicated to solving a case and reminiscing the old times. The case should relate to a doughnut thief where someone has stolen the last doughnut that someone had called dibs on.

### Feature List

There should be one scene in the game containing the theme of a doughnut thief for the crime scene. A tutorial to playing the game should be embedded into the various tasks and scenes in the game. This tutorial should introduce the player to the basic mechanics in the game.

The following elements should be in the game, depending on time constraints and the developmental process.

### Crime scene

- Evidence pieces: Items that lead to mini games. There should be at least two in the scene.
- Clues: Provide information related to solving the case. There should be at least two in the scene.

### Mini-Games

- Rotate images: Rotate images to form a complete version of the evidence. This can be an image of something related to the crime, a receipt, etc.
- Matching fingerprints: Use UV light or magnifying glass to find the fingerprints on evidence that then takes you to the mini game.

### Interrogation

- Dialogue options: Contain clues and information and show the characters' personalities. Should contain some humour.
- NPC Suspects: at least three.

### General Key Features

- Accusing a suspect.
- Rating system: Player receives a rating depending on their skills throughout the game.
- Game views: Point and click to move between the different game phases. (Moving from the crime scene to the mini game.

### Level Design

- Views/phases: crime scene interaction phase, interrogation phase and evidence/mini game view.

## Task Breakdown

The feature list can be broken down using the MoScoW Prioritization method.

### Must Have

In terms of the must haves, it will focus on achieving a functioning game so that it can be played. Without these components the game cannot be developed further.

- Evidence pieces
- Clues
- Mini games:
  - Rotate images.
  - Matching fingerprints
- Dialogue options
- NPC Suspects
- Accusing a suspect
- Crime scene
- Views/phases

### Should have

- Rating system

### Could have

- Reactions of the NPC characters to the end result.

### Will not have

- There will not be a character or character movement.
- Witness statements.
- Fill in a form when accusing the suspect.

## Dependencies & Risks

### Dependencies

The iterations depend on the previous one where the previous iteration needs to be completed before the next one can begin.

- Iteration 1: Mini-game Creation - Creating the mini-games- design/layout and coding them.
- Iteration 2: Data Design - The processes and functions as a base for our project. Such as: String manipulation (with the interrogations and buttons), evidence counter (Score) and rating system. This also includes creating buttons for the interrogation question options and other general UI elements.

The mini games would be the first iteration that then leads into the second iteration of data design because getting the base of the game done was the priority. Iteration 1 can be broken down into smaller iterations for each mini game/puzzle and Iteration 2 can be broken down into the Crime scene and the Interrogation phase.

- Iteration 3: Narrative design: Creating the dialogue and narrations in each scene once the Data design is complete.
- Iteration 4: Asset creation - Evidence, and clue objects (Interactable), character designs, fingerprint designs and rotating puzzle pieces.

Iteration 2 is then followed by Iteration 3 that includes writing, editing, and implementing the dialogue into the interrogation and the small descriptions for each scene. This includes creating the necessary assets that are needed for the gameplay and for NPC differentiating as well as for the Mini games/puzzles.

- Iteration 5: Visual Level Design - Polishing the game and improving the game and narrative feel.

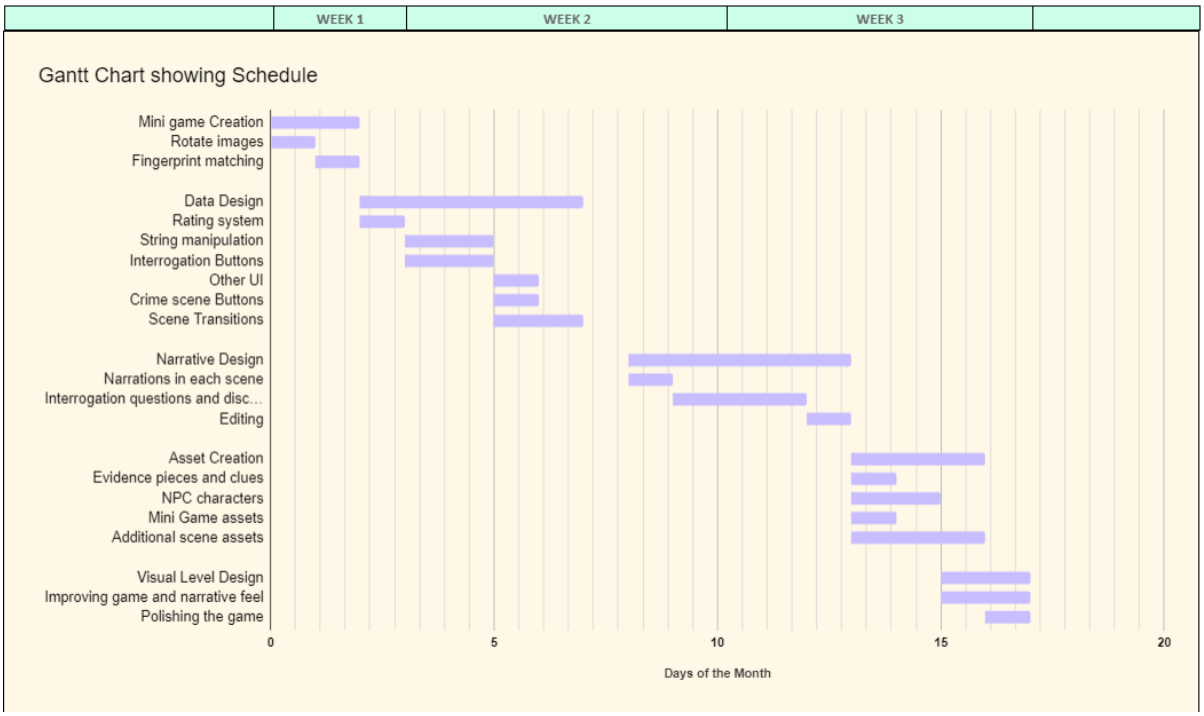
## Risks

- Have not done systems like these before so time estimates for implementation could be wrong. If the time estimates are wrong, they could cause clashes with other courses.
- Currently assuming how easy it is to implement certain systems and mechanics which could be wrong and cause the time estimates to be wrong.
- Other risks include load shedding or general power outages, loss of work due to laptop/unity crashes, severe illness, and unexpected family emergencies.

## Scheduling & Time Estimates

Our plan is to do weekly iterations as we plan on implementing many elements into our game that will be difficult to complete on time if we did bi-weekly iterations. Our plan is to stick to the following schedule as much as we can, or stay ahead of the schedule, if possible. The following table and Gantt chart show our time estimates and scheduling plan for this project:

| TASK NAME | START DATE | END DATE | START ON DAY* | DURATION* (WORK DAYS) |
|---|---|---|---|---|
| **Mini game Creation** | 6/8 | 6/10 | 0 | 2 |
| Rotate images | 6/8 | 6/9 | 0 | 1 |
| Fingerprint matching | 6/9 | 6/10 | 1 | 1 |
| | 6/8 | 6/8 | 0 | 0 |
| **Data Design** | 6/10 | 6/15 | 2 | 5 |
| Rating system | 6/10 | 6/11 | 2 | 1 |
| String manipulation | 6/11 | 6/13 | 3 | 2 |
| Interrogation Buttons | 6/11 | 6/13 | 3 | 2 |
| Other UI | 6/13 | 6/14 | 5 | 1 |
| Crime scene Buttons | 6/13 | 6/14 | 5 | 1 |
| Scene Transitions | 6/13 | 6/15 | 5 | 2 |
| | 6/8 | 6/8 | 0 | 0 |
| **Narrative Design** | 6/16 | 6/21 | 8 | 5 |
| Narrations in each scene | 6/16 | 6/17 | 8 | 1 |
| Interrogation questions and discussions | 6/17 | 6/20 | 9 | 3 |
| Editing | 6/20 | 6/21 | 12 | 1 |
| | 6/8 | 6/8 | 0 | 0 |
| **Asset Creation** | 6/21 | 6/24 | 13 | 3 |
| Evidence pieces and clues | 6/21 | 6/22 | 13 | 1 |
| NPC characters | 6/21 | 6/23 | 13 | 2 |
| Mini Game assets | 6/21 | 6/22 | 13 | 1 |
| Additional scene assets | 6/21 | 6/24 | 13 | 3 |
| | 6/8 | 6/8 | 0 | 0 |
| **Visual Level Design** | 6/23 | 6/25 | 15 | 2 |
| Improving game and narrative feel | 6/23 | 6/25 | 15 | 2 |
| Polishing the game | 6/24 | 6/25 | 16 | 1 |


WEEK 1
WEEK 2
WEEK 3
Gantt Chart showing Schedule
Mini game Creation
Rotate images
Fingerprint matching
Data Design
Rating system
String manipulation
Interrogation Buttons
Other UI
Crime scene Buttons
Scene Transitions
Narrative Design
Narrations in each scene
Interrogation questions and disc...
Editing
Asset Creation
Evidence pieces and clues
NPC characters
Mini Game assets
Additional scene assets
Visual Level Design
Improving game and narrative feel
Polishing the game
0
5
10
15
20
Days of the Month

# Playtesting Data

This playtesting data only contains comments from the final two playtests because they are the final comments that I found necessary for the game's future development and portray how the players felt about this prototype of the game.

| Questions | Playtest 1 | Playtest 2 |
|---|---|---|
| Rate the game out of 10. | 9.5 | 8 -really cute and adorable. |
| How was the narrative being interwoven throughout the game/? Was it consistent and effective for the theme of being cute and silly? | Excellently done and felt important for the crime-solving. One of the first games in a while where they did not skim read over the text. It was a bit much but understandable given the game was narrative-based. | Really like the interrogation dialogue – contains a lot of personality of the characters. Shows the writer in me. |
| General issues with the game's feel or in any of the phases? | Lack of visual feedback when things happen. – not a major issue but can be improved. | Crime scene – buttons still being clickable breaks the flow of the game (issue I noted previously) |
| Was it fun/ not? Why? | Fun, because of the excitement of finding out how everything is going and knowing my decisions are affecting the game. Mini games were nice too and were short and did not bore player and were not too difficult but still challenging enough to feel it. | Fun, difficult to play again- no replayability. Like the fingerprint thing a lot. |
| How would you describe the game to other people? | More of what they felt from the game- Nostalgic because of the narrative and this character's story. | Very cute, narrative-based effective detective game. |
| How was the lack of options in the interrogation phase after 1st question choice? | It was nice as is but also not. It can have more agency in future iterations and make it longer and more interactive. -was fine because of time constraints and other limitations. | Would have been nice to have more options in the dialogue itself. |
| Other comments? | Loved the Art and took the small feedback from previous playtesting sessions. | Really liked the game. |