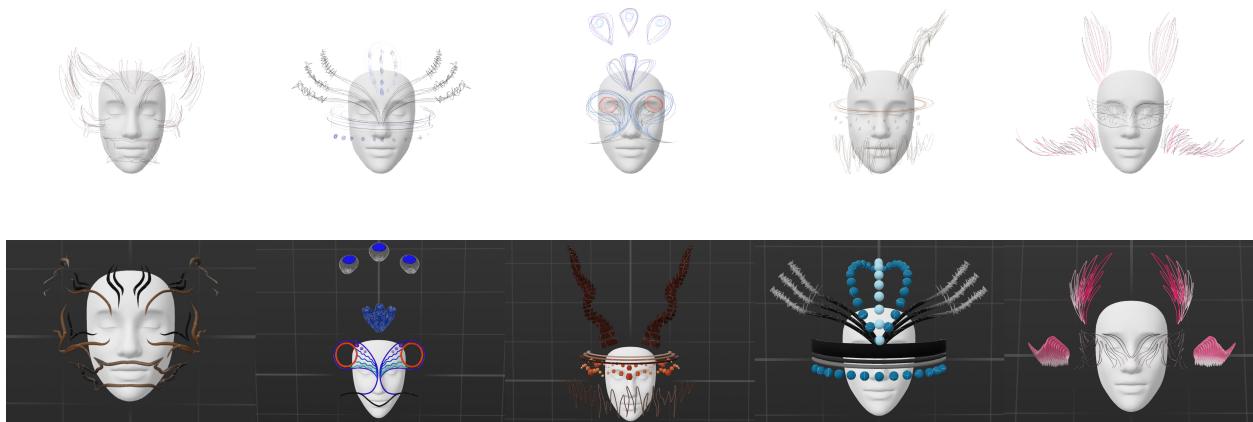


# Final Project: RARE

Pinsi Wang

## Week 1: Determine the game theme and determine the general direction of the thesis

I designed a series of AR filters for the last CCI exhibition. And those filters were inspired by some rare animals. While preparing for the exhibition, I learned a lot about rare animals and the natural environment. I know that the reason why most rare animals are extinct is because humans have destroyed the natural environment. So in this project, I planed to design a game about rare animals and environmental protection.



I had a lot of ideas about the specific content of the game. I decided to design a game like a 3D adventure game. I designed a 3D game in term 3 project. I found this direction interesting and after previous projects, I already had some experience in making 3D games. Therefore, I decided to continue this project with a 3D project.

### Preliminary design of the game

Characters in each level wear different masks with clothes inspired by different rare animals. The background map will be different for each level. The map at the beginning is a desert, and as the level progresses, the final map will become a forest. In each level, the player needs to control the character to pick up enough water drops and avoid monsters in order to advance to the next level.

## **Week 2: Determine the essay topic**

During the week, I determined the theme of the thesis based on the theme of the project I wanted to do. And based on that I came up with three research questions.

**Title:** Levelling Up for Conservation: An Examination of Player Decision-Making in a 3D Adventure Game with Environmental Protection Objectives

**RQ1:** How do in-game environmental transformations, such as the transition from a desert to an oasis, influence players' motivations and persistence in advancing through the game?

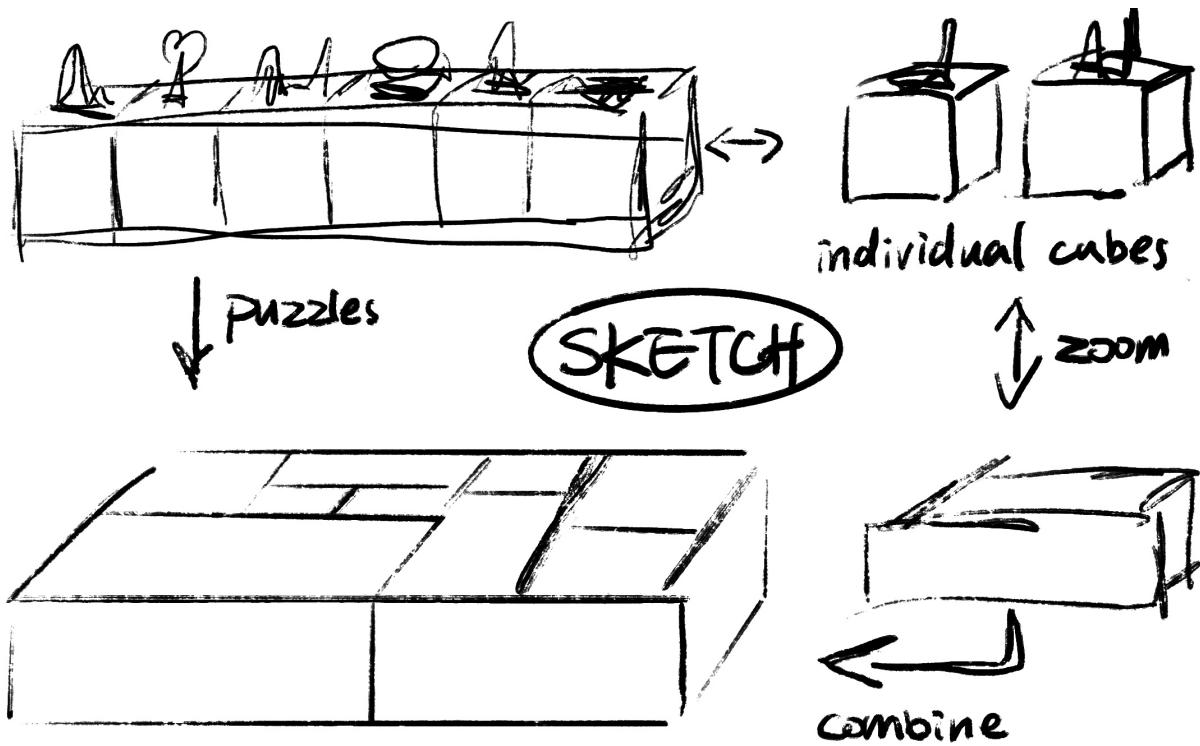
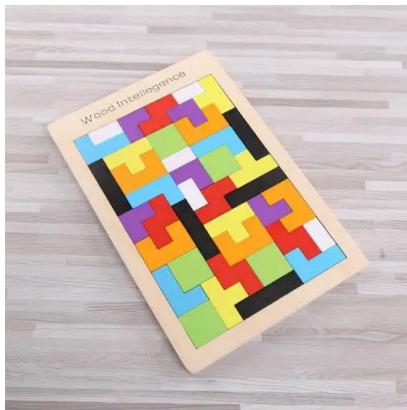
**RQ 2:** How does the integration of thematic environmental elements, such as rare animal-inspired outfits, impact player engagement in a 3D adventure game with a conservation theme?

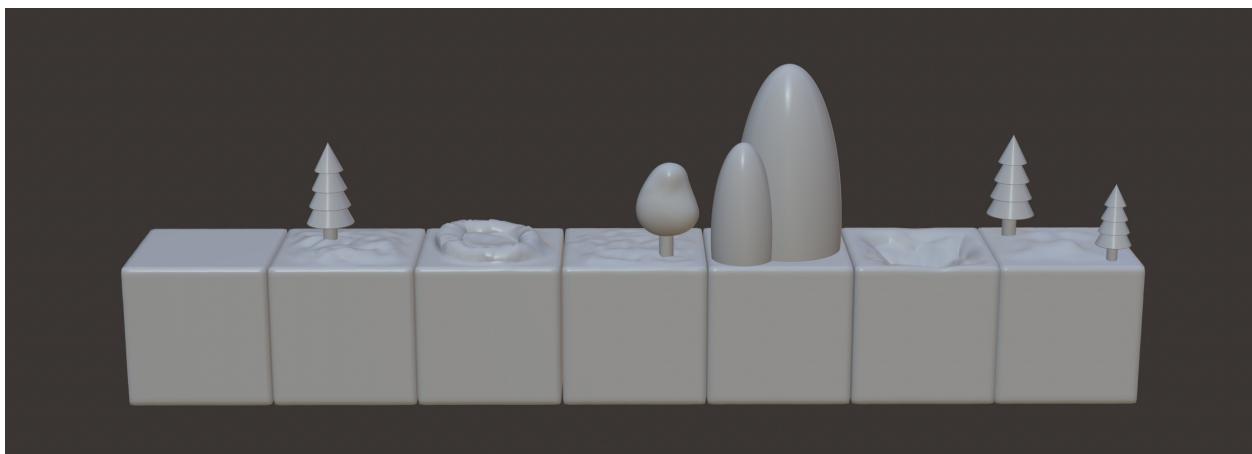
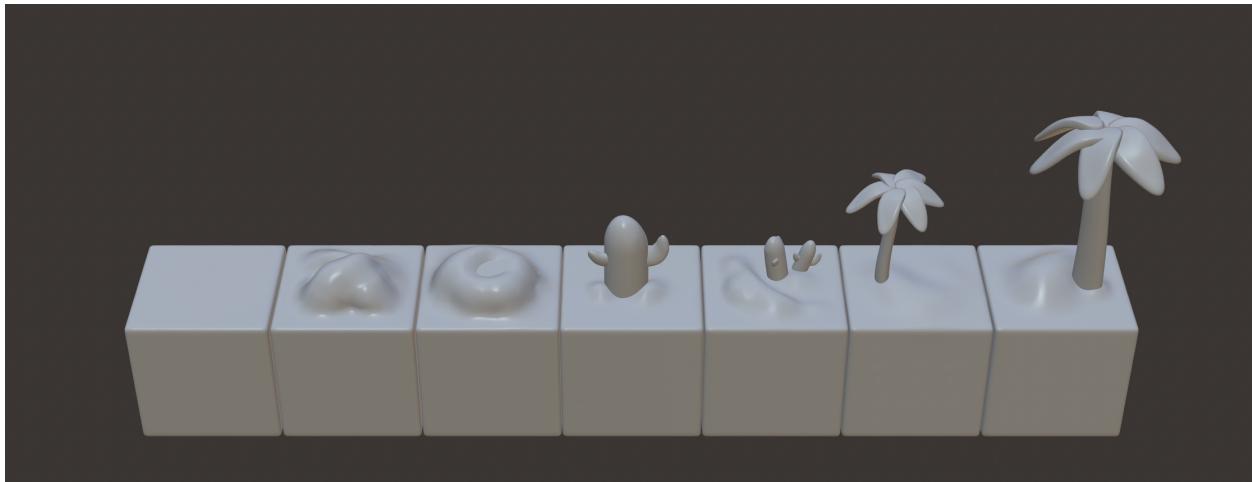
**RQ 3:** What design elements of the game or rewards within the game are most effective in fostering player engagement and environmental awareness?

## **Week 3: 3D modeling of map**

The map is inspired by puzzles and Rubik's Cubes. In my imagination, the desert map would gradually turn into a forest as the levels change. So I had the idea that I would start by designing "cubes", each with a different "terrain", and then use these cubes to

create the map. This is fun and creates the perfect effect of the gradual change of terrain.





## **Week 4: Thesis draft & Improving the rules of the game**

I wrote the thesis draft this week. There are two drafts in this link, the 'Draft.pdf' one is the one I wrote this week.

(Thesis Draft link: <https://github.com/19029785/Thesis-Draft.git>)

During the week I also finalised all the game features and game rules.

## **Game Features & Game Rules**

1. Players need to collect enough water drops and walk to the exit of the maze to clear the level.
2. Players die when they touch an enemy.
3. Players can use skills for dodging or killing enemies.
4. All skills have a limit on the number of times they can be used. Players will not be able to use a skill after they have consumed the number of times it can be used.
5. If a character dies, they will be resurrected directly from the current level and will not start from the beginning.

## **Week 5: Code part**

During the week, I started working on the game part of the code. I've summarised all the code I've coded during the week in one document.

The 'Code Part.pdf' one is one includes all the code I wrote this week.

(Code parts link: <https://github.com/19029785/Thesis-Draft.git>)

## **Week 6: Thesis draft and code part**

This week I gathered feedback from users and wrote more about the draft papers. There are two drafts at this link, the 'Draft 2.pdf' one is the one I wrote this week.

And I've changed some of the basic issues in the game based on the feedback I've received from users. For example, my carelessness resulted in the game UI appearing in both Chinese and English, making it impossible for non-native Chinese speakers to understand the game accurately. I've solved this problem.

(Thesis Draft link: <https://github.com/19029785/Thesis-Draft.git>)

## Week 7: Design maps for each level

With the map already designed, I used some obstacles to put together a maze to make the game more difficult. And I set up the enemies and their paths. The map is different for each level, and the difficulty of the levels gradually increases as the game progresses.



## Week 8: Thesis

During the week, I finished writing my thesis and also finished making the game.

(Thesis & Game zip folder link:<https://github.com/19029785/CCI-Final-Project.git>)

# **Week 9: Project report video**

During the week I recorded and edited my project report video. In this video I talk about the inspiration for the project, the purpose of the game, the rules of the game, the map design, the interactive animations and the future plans for the game.

(Video Link: <https://youtu.be/7DdejnCQzyE>)

## **Conclusion**

I learnt a lot of new things through this project. Firstly, game development requires strict time management and I learnt how to allocate my time wisely to complete the project.

Secondly, I have designed several projects, but this is the first time I started to collect user feedback. I collected and analysed players' feedback and then improved the game, which was a continuous improvement process that strengthened my ability to improve design and communicate with users.

Thirdly, designing a game that promotes environmental protection and animal conservation shows that I care about these important social issues. This has deepened my understanding of social responsibility.

Overall, this project not only enhances my technical skills but also helps to develop creative thinking, time management and social responsibility. All of these skills and experiences will have a positive impact on my future career.