# Bíg Game Scientist

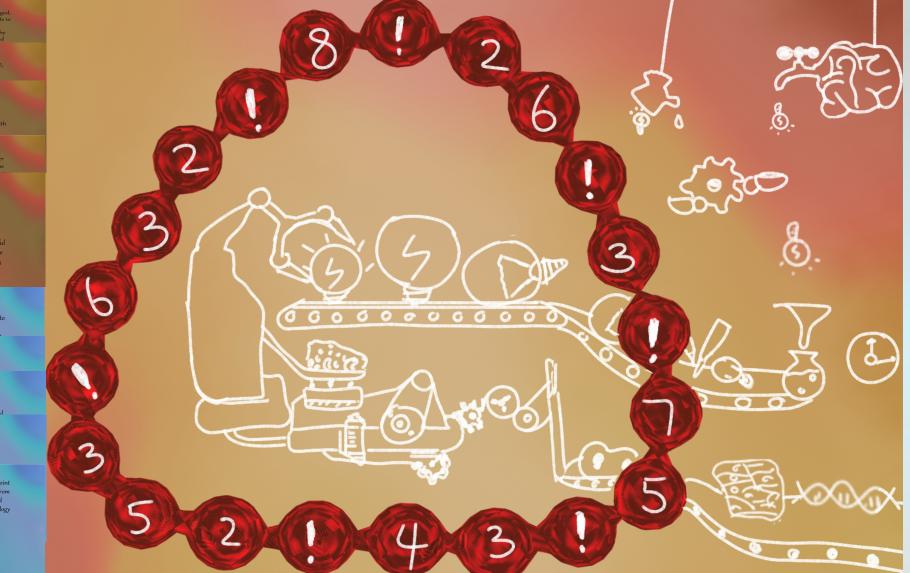
Bingqian Guo (S3622056) | Advanced Play Design - Folio2

## Game Map

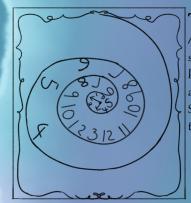


Player 1:

Player 2:



## Chance Cards

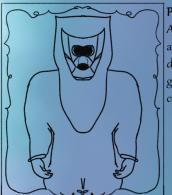


#### Time Tunnel

After using the player needs to simulate the water flowing backwards once in 3 minutes according to the prompt. Successful challenge can get 10 technology points



Invisibility Cloak After use, you need to help the soldier to hide in the specified environment. If the soldier is not found by other players in the specified time, you will be rewarded with 10 technology points.



**Protective clothes** After using it, players need to answer 5 questions about disaster protection correctly and get 10 bonus tech points for correct answers.

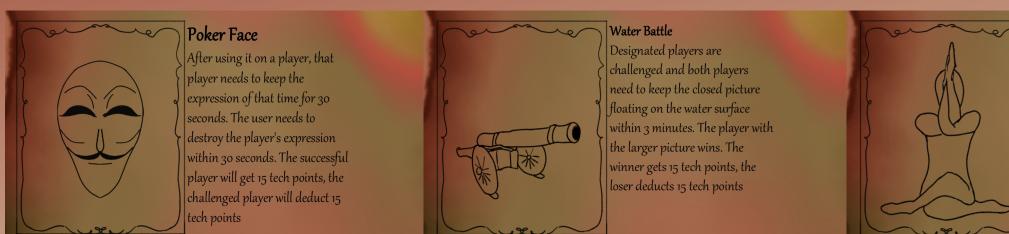


After using it, players need to point out a cause-effect relationship from the word within 30 seconds, and will be rewarded with 10 technology points for completion

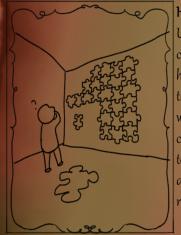


Guide canes After using the player needs to blindfold and help the soldiers to cross the obstacles to the end within 1 minute, completion will be rewarded with 10 technology points

Trap Cards



Motion Simulation Designate a player to challenge, the challenged player needs to draw an action card and simulate the action on the card and hold it for 1 minute. If the challenged player fails, the challenger gets 15 tech points and the challenged player deducts 15 tech points.



### Heaven Canvas

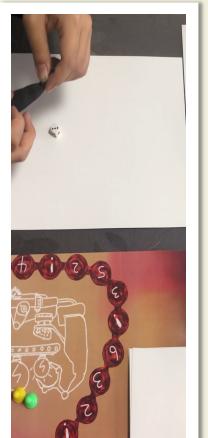
Use to designate a player to challenge. The challenged player has to draw a word and describe the text of the word by drawing it within 2 minutes. If the challenged player fails, 15 technology points will be deducted and the challenger will receive 15 technology points.



### Survival of the fittest

Designated players are challenged, and the challenged player needs to simulate a natural disaster to destroy the fortifications built by the challenger within a specified time. If the fortification collapses, the challenger will receive 15 technology points and the challenger will deduct 15 technology points.

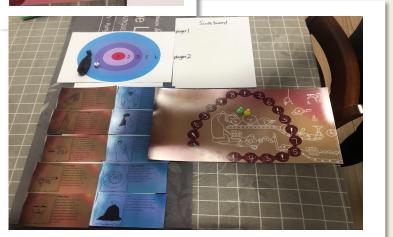
This Game + Rule Book



Big Game Scientist is a tabletop game that I created based on the themes and responses of Advanced Play Design and a summary of the elements covered in the 12 weeks.

Each week's exploration of the production has been reworked into a card game for the tabletop game. Cards are created based on the weekly theme.

Players move pieces around the board by points, earn cards in symbol positions, and complete small challenges on the cards to earn extra points to win the game.

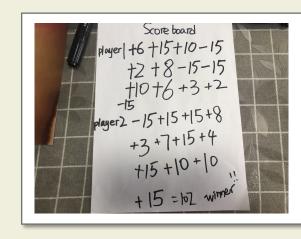


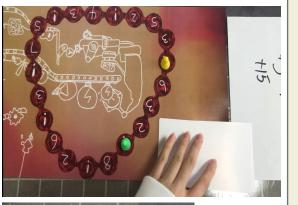
This semester I created 12 weeks of response work around the theme of "Science meets Games".

For 12 weeks I stuck to the science elements with realistic experience games.

I hope that science will interest the players and also inspire the game makers to integrate more realistic content into the game for the purpose of exploration and design.







Therefore, when concluding and creating the gameplay, I continued to follow the realistic experience game approach by choosing a tabletop game.

The board design will be based on a "science" style layout, with some interesting Chance cards and Trap Cards to stimulate the player's interest in science.



In my opinion, "Big Game Scientist" will be a very interesting and fun tabletop game. Players will learn to experience some scientific knowledge while playing, so that this desire for scientific exploration will develop beyond the board.

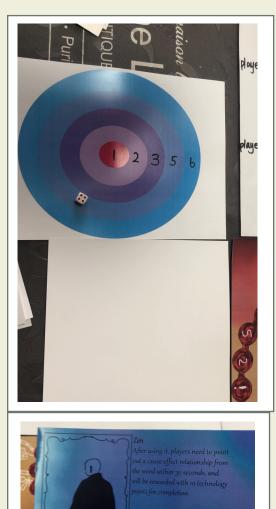
Players earn science points by moving along the grid, and have a chance to earn chance cards and trap cards.



The chance cards can only be used on yourself. By completing the chance cards, the player gains science points and the skills on the cards.

Trap Cards need to be used on other players. By competing with other players, the winner will receive the skills on the card as well as the science points (the number of points is the number of points represented on the card) of the losing player.

Also note that players can only have a maximum of two cards at the same time. The game ends when a player has 100 science points and that player is the Big Game Scientist.



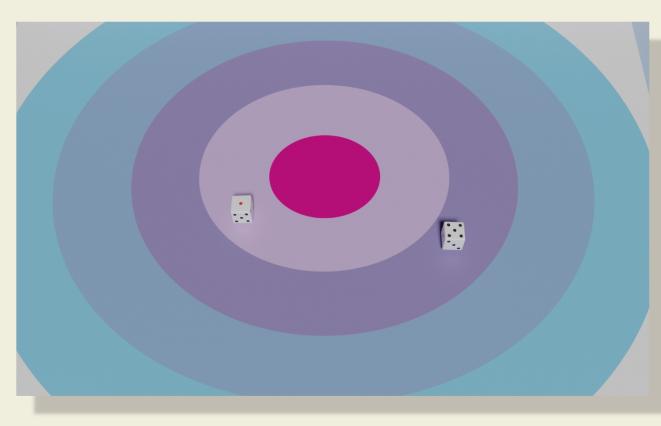
## Control Method

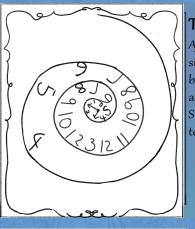
The game will be different from the usual tabletop game by dice to get the number of moves.

In Big Game Scientist, players will earn moves similar to the way they earn points in curling.

Players will earn moves by bouncing a slider off a spring in the field. When the slider stops moving, the number in the area where the slider is located is the number of steps the player has moved that turn.

The advantage of this design over dice is that players can consciously control the number of points to increase their chances of getting more science points and cards, thus making the game more strategic and interesting.





### Time Tunnel

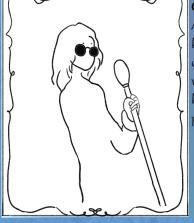
After using the player needs to simulate the water flowing backwards once in 3 minutes according to the prompt. Successful challenge can get 10 technology points

### 2 Play+Tíme upstream

チ



#### Guide canes



### After using the player needs to blindfold and help the soldiers to cross the obstacles to the end within 1 minute, completion will be rewarded with 10 technology points

Play+Sounds Obstacles



## Invisibility Cloak

After use, you need to help the soldier to hide in the specified environment. If the soldier is not found by other players in the specified time, you will be rewarded with 10 technology points.

. Play+Place híde-and-seek



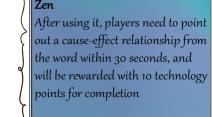
## **Chance cards Responses**

Click on the QR code (Mr. Dinosaur) to check weekly responses of MAGI website

**Protective clothes** After using it, players need to answer 5 questions about disaster protection correctly and get 10 bonus tech points for correct answers.

5 Play+Force dísaster occurrence





### , 11 Play+stíllness Causes and Results





### **Poker Face** Ifter using it on a player, that

player needs to keep the expression of that time for 30 econds. The user needs to lestroy the player's expression vithin 30 seconds. The successful player will get 15 tech points, the challenged player will deduct 15 ech points

Play+Observation transmission of emotions

1



#### Water Battle

Designated players are challenged and both players need to keep the closed picture floating on the water surface within 3 minutes. The player with the larger picture wins. The winner gets 15 tech points, the loser deducts 15 tech points

з Play+object Color area



Motion Simulation Designate a player to challenge, the challenged player needs to draw an action card and simulate the action on the card and hold it for 1 minute. If the challenged player fails, the challenger gets 15 tech points and the challenged player deducts 15 tech points.

8 Play+body Dueling calories



## Trap Cards responses

Click on the QR code (Mr. Dinosaur) to check weekly responses of MAGI website

## Heaven Canvas

Use to designate a player to challenge. The challenged player has to draw a word and describe the text of the word by drawing it within 2 minutes. If the challenged player fails, 15 technology points will be deducted and the challenger will receive 15 technology points.

Play+abstract Puzzle Guessing



Survival of the fittest Designated players are challenged and the challenged player needs t simulate a natural disaster to destroy the fortifications built by the challenger within a specified time. If the fortification collapses, the challenger will receive 15 technology points and the challenger will deduct 15 technology points.

10 Play+nature The best fit to survive



Overall Reflections

I have benefited greatly from the past 12 weeks of APD. First of all thanks to the APD course for giving me a design mindset that combines playfulness and theoretical orientation.

I was able to explore quick concepts and ideas in a purposeful and comfortable environment through weekly exercises, interacting with family and friends through my playtesting, and having a lot of fun getting feedback and affirmation.

I also regret not being able to let more students play the games I designed because of the epidemic at the same time.

Throughout the 12 weeks of design, I have been thinking about how basic scientific theory can receive more attention as the basis for the development of any discipline, including game design. Is it possible to design games that are both fun and intellectual at the same time? To this end I have explored around themes in conjunction with weekly guides, and hope that these ideas will lead to larger projects in the future. The most important part of my practice is practice.

For example, "Flow backwards" and "Swallow ball battle" are more from the perspective of science experiments, which are designed to be played with by changing the process of experimentation; "For the protection of strength" is more about increasing the weight of science in the game through the way of knowledge quiz.

However, while I learned from "Situational Game Design" (2017) that "most game design focuses on the game as a formal system, "contextual design" focuses entirely on the player's experience. Considering that gameplay is not an isolated gameplay attribute, I went to explore the results of the intersection of gameplay and appropriate players.

I began to realize that I should prioritize fun more, so in "Battle! Calories" I "invisibilized" the scientific theory and tried to make it invisible in the game.

In "Play in Hybrid Reality: Alternative Approaches to Game Design" there is an argument: "This goal might be require players heightened awareness of their surroundings. Thus the opposite to a devicecentric view on immersion; such alternative game aesthetics, nevertheless, can produce games that are interesting to play".

The difficult part for me was trying to break through in designing the gameplay: improving the awareness of the environment when the player experience in the game. The main problem is that there is no way to balance immersion with the abstract theme of "science". While recording and observing the player's behavior, I found that realistic games seemed to have difficulty in bringing the player into a specific environment. With the feedback of Matthew, I began to look at PC games for inspiration and solutions.

Through the research and analysis of the games "Journey", "Sky:Children of Light" and "Red Dead Redemption 2", I found that immersion is not only reflected by the visual senses, but also by the five senses.

Immersion depends on the five senses: "sight, sound, touch, smell, and taste", and when three or more of them are simulated, it is easier to reflect the player's immersion in the game.

Therefore, in WEEK 6 "The Blind World", I conducted a study on the integration of the environment and proposed that realistic games can enhance the player's sense of immersion by adding suitable sound effects or ambient sounds.

But I encountered a new problem: the cultural differences between players. Players will have different game experiences due to different countries, living environments and other factors.

In the subsequent game design, I realized that I needed to identify the target audience at the beginning of the design process, and that I needed to be more attuned to their preferences.

APD gave me a great opportunity to explore the field of "science and games", and I realized that design is not simply a combination of code and animation.

The design process takes into account "interactivity, immersion, and target player groups". Looking back at my weekly answers, I am constantly reminded of the importance of making a game. It is worth mentioning that the most important thing about gameplay is the optimism of trying new things through constant testing, feedback, and iteration to break the status.

I will keep these truths in mind in the future, whether I am designing PC games or realistic games. Hopefully I will continue to move forward in practice



En.m.wikipedia.org. 2021. Red Dead - Wikipedia. [ o n l i n e ] A v a i l a b l e a t : <https://en.m.wikipedia.org/wiki/Red\_Dead> [Accessed 10 October 2021].

En.m.wikipedia.org. 2021. Journey (2012 video game) - Wikipedia. [online] Available at: <https://en.m.wikipedia.org/wiki/Journey\_(2012 \_video\_game)> [Accessed 8 October 2021].

Mayra, F & Lankoski, P 2009, 'Play in Hybrid Reality: Alternative Approaches to Game Design' in Adriana de Souza e Silva and Daniel Sutko (eds.), Digital Cityscapes: Merging Digital and Urban Playspaces, Peter Lang Publishers, New York.

Upton, B., 2021. Shibboleth Authentication Request. [online] Ebookcentral.proquest.com. A v a i l a b l e a t : <https://ebookcentral.proquest.com/lib/rmit/de tail.action?docID=5117851&pq-origsite=primo> [Accessed 3 October 2021].

## Credits

© 2021 Bingqian Guo

**Supervisor** Matthew Riley

## **RMIT University**

Master of Animtaion, Game and Interactivity(MAGI) School of design

