

# **CAT 4 RESOURCE DEVELOPMENT**

**GROUP 4-13**

## **LIVING WITHOUT IT**

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**ABSTRACT**

The game was set in the premise of an reality TV survival show where the players will play as the contestants trying to survive in a remote location in an archipelago, traveling around to get resources that enable them to survive until rescue. This was aimed as to be a teaching tool for Thinking Programme teachers to use to teach students skills such as critical thinking and decision making.

# **1 INTRODUCTION**

## **1.1 Rationale**

Many people would not know what to do if stranded on an island without any daily necessities or luxuries, and not knowing how to weigh the benefits of their decision.

## **1.2 Objectives**

The objective was to teach critical thinking and decision skills, as well as managing your resources in a crisis.

## **1.3 Target Audience**

The target audience of this product are Secondary 1-2 students and thinking programme teachers who could utilise this tool in their lesson.

## **1.4 Resources**

The resources created for this project are a board game and accompanying materials and items:

1. 2 Game Manuals
2. 20 cards
3. 10 question cards
4. Respective heat, water and food tokens

## 2 REVIEW



Through our literature review, we realised that most of the games related to our topic in the market did not really address our problem. The more recent games such as these are heavily commercialized and are intended for people to have fun than learn how to manage their resources. Jurassic World Evolution is also helped to promote the Jurassic World series, focusing more on city building and dinosaurs than on other aspects.

Depraved was nearer to our focus where players learn how to manage their food and resources, but that game is also focused on city building and simulation etc.

Another genre of games that we found were those whose players have to manage resources on a macro-scale. They are supposed to build their own city but these games were mostly very vague and do not provide the necessary information to educate its players. Those games oversimplify the actions and resources for ease of play, one example being Minecraft where players use only a crafting box to craft. For example, these games range from Clash of Clans where you have to manage your resources like gold and elixir. In Clash of Clans, The tedious building of a hut could be reduced to spending money to build in these sort of games.

You might ask, “What makes our game better than others?” Well, our game focused on educating its players about resource management in an enjoyable and entertaining manner, and did not ignore the important aspects in resource management.

### **3 METHODOLOGY**

#### **3.1 Needs Analysis**

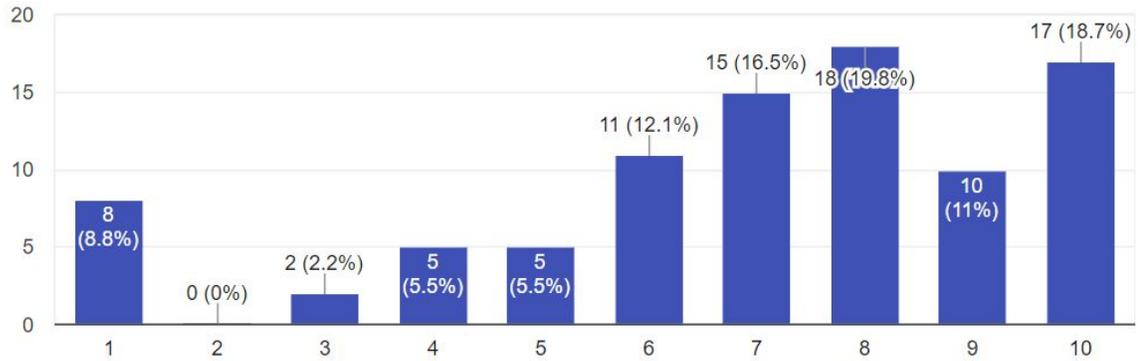
We conducted a needs analysis survey to confirm that our idea of this board game is useful. We also showed respondents' a portion of our game to test their critical thinking skills and see whether they would be interested in it, and they responded with a majority of 7 or more out of 10. This showed that majority of the surveyors did not know what to in a survival situation, proving the need for our project.

### 3.2 Survey Results

How useful do you think our board game will be to you?

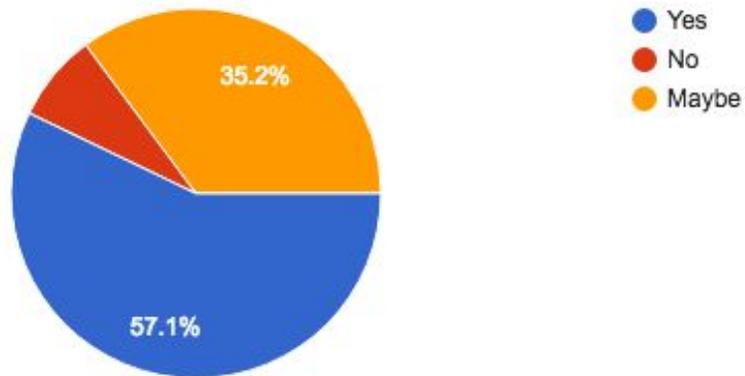


91 responses



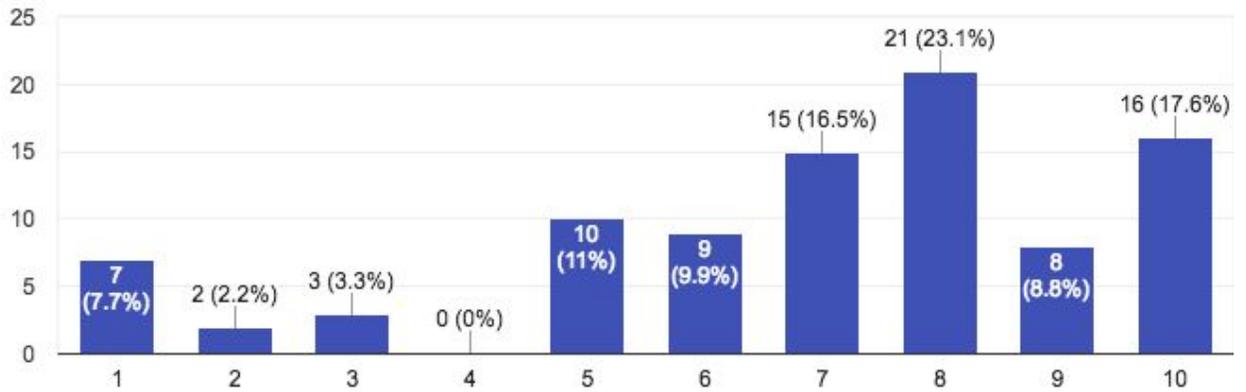
Do you think this game will be enjoyable and useful?

91 responses



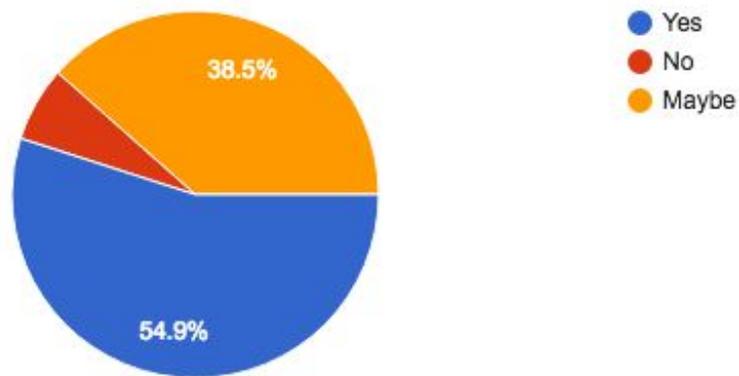
## How interested are you in learning survival skills?

91 responses



## Lastly, would you consider playing this board game in the future?

91 responses

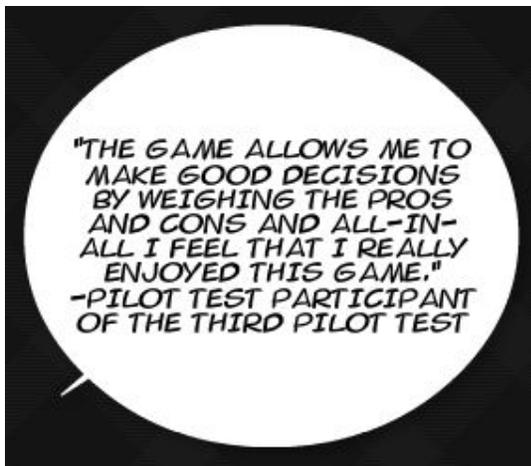


### 3.3 Pilot test:

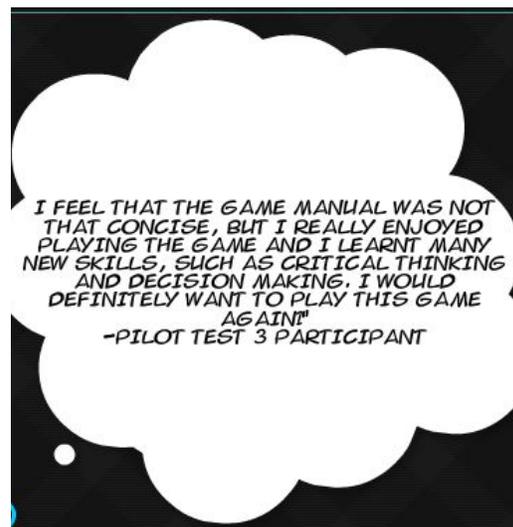


We conducted three rounds of pilot tests, two before the midterm evaluation and one before the final evaluation. After each pilot test, we received feedback and amended our game accordingly. We received largely positive feedback for each pilot test.

We also consulted Dr Tan Kok Kim, our Thinking Programme teacher to see if he had any comments, and he thought that our idea was very good.

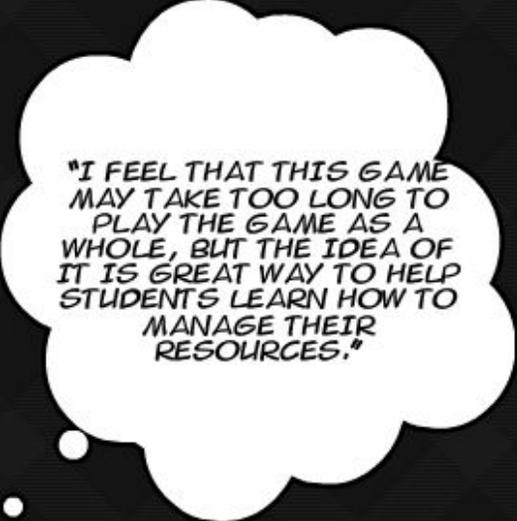


"THE GAME WAS SUPER FUN BUT THE MANUAL WAS NOT THAT GOOD, BUT I WOULD LIKE TO PLAY THIS GAME AGAIN!"  
-PILOT TEST 3 PARTICIPANT





"THE BOARD GAME DOES HELP THE PLAYERS TO LEARN HOW TO MAKE GOOD DECISION AND EXERCISE THEIR CRITICAL THINKING SKILLS, AND I FEEL THAT BOARD GAMES IS SOMETHING THAT WILL DEFINITELY INTRIGUE STUDENTS, AND BRING UP THEIR INTEREST AND MOTIVATION IN THE SUBJECT COMPARED TO JUST LESSONS."  
-DR TAN KOK KIM



"I FEEL THAT THIS GAME MAY TAKE TOO LONG TO PLAY THE GAME AS A WHOLE, BUT THE IDEA OF IT IS GREAT WAY TO HELP STUDENTS LEARN HOW TO MANAGE THEIR RESOURCES."



"I THINK THAT THIS BOARD GAME IS A GOOD IDEA IF DONE WELL, AS IT IS A HANDS-ON WAY TO LEARN ABOUT RESOURCE MANAGEMENT. I THINK THAT YOU SHOULD ALSO TRY TO MAKE THE GAME A BIT SIMPLER, AS IT TOOK ME A LONG TIME TO GET THE HANG OF THE GAME AT THE START"

### **3.3 Development of Resources**

To develop the games, we utilised an online drawing tool, Pixilart, to draw most of the graphics out. Another thing that we did was consulting Dr Tan Kok Kim, our Thinking Programme teacher, for some advice. He advised us along the way on how to develop our game so that it taught students on critical thinking and decision making skills.

### **3.4 Method**

The method we used for the game was from the approach of using play to teach. As seen from this TIME article [2], it says that Middle School students in America who learnt things through play “were able to develop imaginative physical and mental creations, and importantly, enjoyed the process of learning”. This game could help encourage critical thinking skills in the players and help with their decision making, for example, one choice might allow them to have a short term benefit but not a long term one, vice versa. The article, “Critical Thinking”, also describes the benefits of training and learning critical thinking, such as it is a “domain-general thinking skill: The ability to think clearly and rationally is important whatever we choose to do. Being able to think well and solve problems systematically is an asset for any career.” Critical thinking also helps to enhance language and presentation skills, as well as the ability to think clearly and systematically to improve our expression of ideas.

### **3.5 Product**

The game was set in the premise of a reality TV survival show where the players would play as the contestants trying to survive in a remote location in an archipelago, traveling around to get resources that enable them to survive until rescue.

The game starts when the players choose a moderator. Then the players select their game token and are placed in random areas on the game map with basic starting items. There will be various different habitats in our game map in which the players

would collect items that would help them. The game would get harder and harder until it reaches the final phase, where the players would have to pass a test to get “rescued”. Players would also have to manage things like their food, water, heat and items essential for their survival, which would give them advantages against other players (e.g higher chances of catching a fish, able to find better plants to eat).

At the start of every turn, players will roll the dice again that will result in a wide range of things from good to bad that will affect only him/her. After the dice rolls, players will draw a random card and use his/her actions.

As mentioned above, the game would also include cards. Players would draw from a deck of item cards every round and can only obtain the other categories of card via specific action

## **4 OUTCOME AND DISCUSSION**

### **4.1 Final Outcome**

Receiving positive feedback from all three pilot tests, we decided to extend the game even more, and created even more cards to help with the game, to allow more variety and learning to our game, as well as include useful information in each card so as to educate students. We also made the game manual more in-depth and covered all the game mechanics in deeper detail, to allow the players to have a deeper understanding of our game.

### **4.2 Limitations**

We had a limited time frame to complete the project so we might not been able to expand the project to the greatest potential. The time period of 8 months was very short and hard to design a whole game based on it. The idea was quite complicated and would take more time to brainstorm as well as create the game. We selected pixilart out of a few designing tools we had. In PixilArt, the maximum pixel length and width was 700 pixels makes it hard to put in detail and make it look streamlined as we are forced

to stitch different Pixilart artworks together rather than doing it on one piece of artwork, making it look slightly choppy.

### **4.3 Further Work**

We will test out our game with more Secondary 1s and edit our game accordingly. We will also continue adding on to our game content as our game can be easily adapted to fit in more aspects like adding in some more features on islands and adding on to the list of animals present to make the game more interesting and educational.

## **5 CONCLUSION**

Through this project, we faced many difficulties such as the art as well as the brainstorming behind the project. It was also hard adjusting to the timeline and taking charge of the project ourselves. It was hard to do it as there were so little restrictions so it was hard to think of something.

We acquired new skills like creative thinking through brainstorming, and perseverance whenever we encounter any difficulties or challenges along the way, also learning how to write reports and references. We had to learn set realistic deadlines and accomplish what we planned to do.

Overall, we have accomplished and learned much over these 8 months.

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## Images

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