

# ‘똥똥쿨쿨’ A game that makes children go active

똥똥쿨쿨조 / team2

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머리는 줄넘기 모양이에요!

## Final output

### Game Name & Character Description

A name of this game is 'ttwi-ttwi-kul-kul' because exercise and sleep are essential factors for children's health. User research has found that most of the games children like are 3D games, making the game characters 3D. Since 'ttwii-ttwi-kul-kul' is a game that moves while running, the character name is 'ttwi-yong'. Also, a character's hair looks like a jump rope. In line with the psychological characteristics of children who like the original color, yellow is often used as a color for children's products, so the color of the character was selected as yellow.

## User Testing Results

### <First prototype test>

-‘해맞이’ Children's Center, located in Hoekwon-dong, Buk-gu, Pohang, Saturday, April 20, 2019. - Conducted on 8 children aged 8 to 13. -The first game is ‘if food comes from the sky’, and the second game is ‘running to the dreamland’.

### <A problem discovered>

1. The jumping position varies with height, making it difficult for short children to clear the game in the second game.
2. The tall child had the inconvenience of pressing the button right away.

### <Problem solving plan>

Adjust the menu location to suit the user's key to make it easier for even shorter friends to choose the menu. Tests on children who are target users revealed that there is a problem with the location of the jump according to the height. To solve this problem, the menu was adjusted to match the user's key. This was applied and the second prototype test was carried out.

### <Second prototype test>

- Saturday, May 11th, 2019, the Dream House Regional Children's Center in Daegu  
- Conducted on 18 children aged 9 to 14  
- Games 1 and 2 are the same as the first, and thirdly we added a new game, ‘fat boxing!’

### <A problem discovered>

- 1.The menu position was often too close to the head to be misselected unless you are sure to move toward the arrow.
2. The difficulty of the second game was too easy for the senior.
3. As we targeted many children, we couldn't give them enough games, so the children were sad.

### <Problem solving plan>

The menu will be further adjusted to make sure the user has a choice. In the third game, "fat boxing!" We could see the children are more interesting when we put in a sound when children hits the fat character. The final output will be supplemented with both sound effects and BGM.

## Conclusion & Contribution

The purpose of our game is to help children exercise interestingly. After two prototype tests, We were able to prove that children are interesting and exercise.

When asked Do you want to play the game again, most of the children answered “yes”. So we confirm that they were interested. We saw that the children were out of breath and sweating after playing the game. So we confirmed the effects of exercise.

It was divided into a coding team and a design team. Dong-joo and Min-ji are coding teams, and Seung-yeon and Joo-hye are design teams. As we went on, we thought about each other's blockages and solved them together.

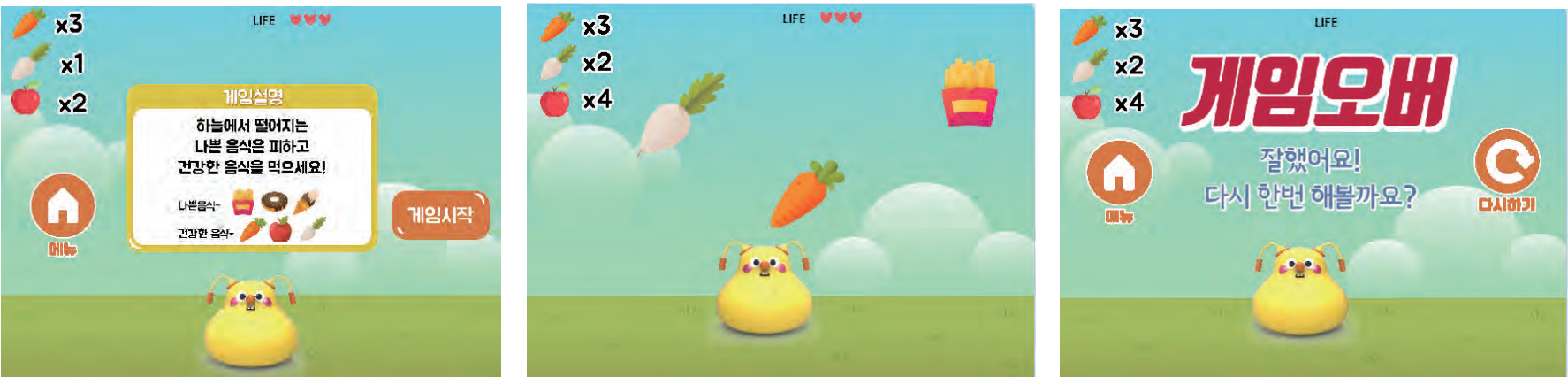
## Game Configuration

Since the target is children, I made up six mini-games of various contents because one game would easily reduce children's interest.



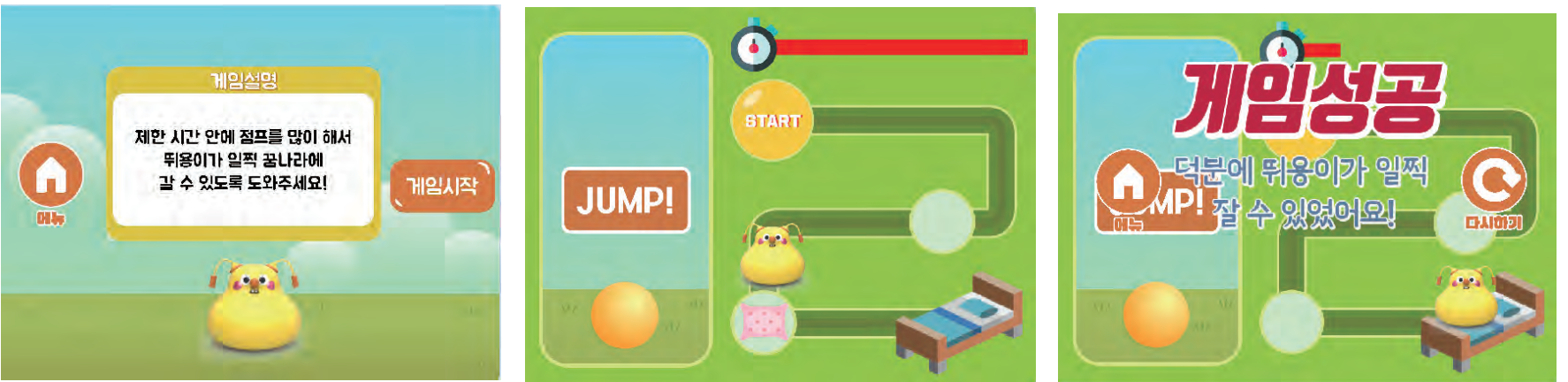
### 01) Jump and press start of game.

Jump and select menu.



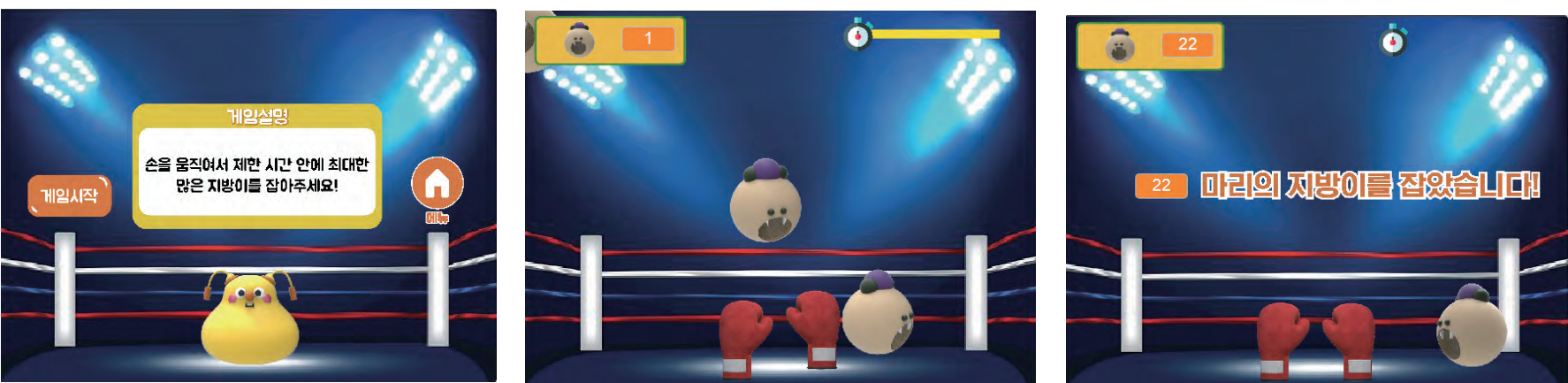
### 02) If food comes from the sky,

Eating healthy food is a mission! You have to perform the mission within the time limit. If you eat unhealthy food, ttwi-yong's body will get fat.



### 03) Run to dreamland.

You should help ttwi-yong get to bed early. When you jumps, the ball on the left also jumps. The more you jump, the closer the ttwi-yong gets to the bed. And you can get an item.



### 04) fat boxing!

Catch as much fat as you can in time! The number of fat caught appears as a number after the game. A game where children can compete with their friends and have fun.

## Limitation

The children were so different in height that a problem occurred when they jumped and pressed the button. Currently, it has designated the location of the button by floating a certain height above the head, but this is not a perfect solution either. Short children are because their characters disappear under the screen. We think these problems are the limitations of our game and are something to be supplemented.

## Further Plan

1. Implement the remaining three mini games that have not yet been implemented.

<Get your mom and dad ready for dinner.>

It's not just a kid playing the game, it's a 2P game. It is a game of choosing ingredients and cooking, which leads to healthy eating habits. I think children will like it because many people want to play games with their parents after testing their digital prototypes

<Follow me.>

A game that imitates a designated action! It is a game that does simple stretching.

<whirling hula hoops.>

When a user turns his back, the screen appears as if he is actually spinning a hula hoop. If you don't drop the hula hoop and spin it as long as you can, you'll succeed!

2.Give a stage of the game to make it harder and harder.

3.Lanking allows children to play in competition.