

BCLC Lottery Content Innovation Project  
**Usability Testing Design Document**



## Purpose of this Document

This is a Usability Testing design document covering the BCLC Lottery Content Innovation Project for Studio 777. Usability testing is a technique used in user-centered interaction design to evaluate a product by testing it on users. In order to get feedbacks from users as early as possible, we did 9 usability tests during the production process.

It provides research materials that are intended to assist the relevant staff in further developing the project. It is also useful background information for developing the Mini Game Lotto, Augmented Reality Lotto and Statistic Lotto.

- [Feb 12 - Ease-of-use of three prototypes](#)
- [Feb 17 - Score screen design / Result](#)
- [Feb 25 - Mini Game Instruction 1 / Test Note](#)
- [Mar 2 - Mini Game Instruction 2](#)
- [Mar 10 - Mini Game Instruction 3](#)
- [Mar 10 - Mini Game Loop](#)
- [Mar 11 - CDM Group test](#)
- [Mar 23 - BCLC show & tell demo test](#)
- [Mar 31 - Alpha testing](#)

# User Testing Design on Feb 12th

## Research purpose

1. Validate the design of user test flow for how to conduct a usability testing section.
2. Do usability tests for three prototypes among CDM students (individually) to validate the feature of ease-of-use for Mini Game Lotto and Augmented Reality Lotto prototypes.

We will do an anonymous qualitative (direct) test among 10 testers (5 for each prototype) using **Usability-Lab Studies** research method. And we will document the testing process by videoing only their hands. No identification of a person will be recorded. No names will be recorded. No gender will be recorded.

## User test flow (Steps)

- Step 1. Prepare Introduction & Question list
- Step 2. Select five testers (Profiles) for each prototype
- Step 3. Capture observations (Video of hand interaction only) & Asking questions
- Step 4. Analysis & Documentation

## Introduction

“We have a prototype for our project we’d like to test. We want to do a usability test with you. So would you have 3 minutes to play this app? After 3 minutes, we will ask you several questions. We will also document by recording video, but only of your hands interacting with the device. No private information or any information that can identify you will be collected.”

**Questions** (Please refer to Appendix A for user testing form, and each interviewer fills in the form)

1. Do you think the app was for solution/problem solving, or for entertainment?
2. How hard was it for you to navigate the app?
3. Were you distracted by anything on the screen?
4. Did you notice the numbers on the score screen? What do you think it means?
5. Was there something missing you were expecting to see?

## Key Observation Points

### Mini Game Lotto

1. Did they notice or press SCAN and ACHIEVEMENT buttons one the menu screen?

2. Did they notice the COUNT-DOWN? In other words, do they feel confused when they succeed but it doesn't go into next game directly?
3. Did they want to give up in any point? And when?
4. Did they understand the NUMBERS or the REWARD on the score screen?

#### **Augmented Reality Lotto**

1. How long did it take them to figure out each button's functionality?
2. How long did they spend on the dreamland page? Did they enjoy it?

### **Execution**

#### **Mini Game Lotto & Augmented Reality Lotto**

Karen - doing introduction, asking questions and taking notes

Macy - taking video

### **Analysis**

After user testing, we will analyze feedbacks in the following steps:

Step 1. Each interviewer sorts out and writes down each feedback on one stickie.

Step 2. Do a KFC for each prototype.

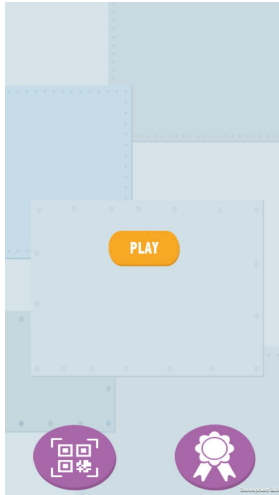
Step 3. Karen will develop a user testing report for the next iteration.

## Report

### Feedback

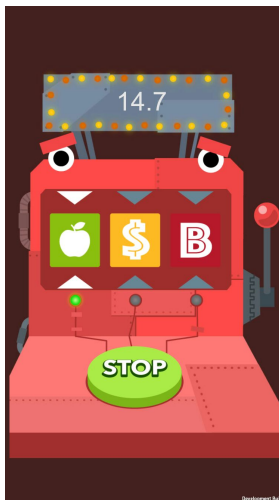
(Black : easy to change, Blue: hard to change)

#### Mini Game Lotto



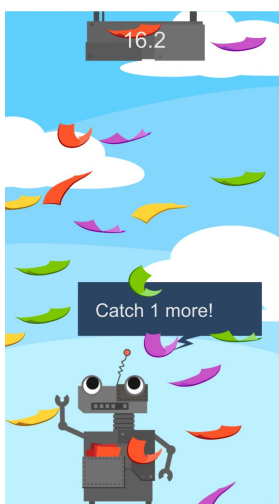
##### Main Menu

- Wrong resolution of UI (**button dimensions**)
- Redesign the start page, include **game Logo**
- **Level map on the main screen**



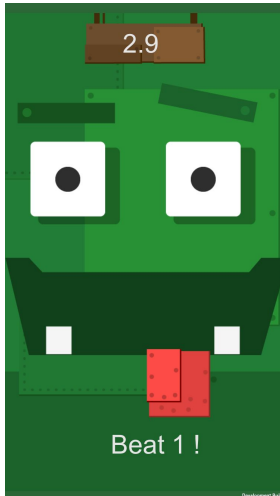
##### Slow Slot

- Introduction text
  - bigger and clearer
- Patterns
  - add rolling and stop animation
  - highlight the one going to be stop



##### Catch Tickets

- Introduction text
  - change “catch” to “drag”
  - make the color you need to catch more obviously
- show the player where they need to drag the ticket to



### Shaking Dice

- Beat Number
  - Make the number the player need to beat more

obvious

- Dice move
  - shaking the dice when phone is shaking
  - Slowly stop after phone stop shake ( animation

or program )

### Win View

- Add winning view for every game
- make the player know they win or lose
- turn into next game directly when they fall or lose



### Lotto Number

- no random background color for lottery numbers
- change all the color to lotto blue color
- try to use lotto logo shape

### Score

- add score view to in-game views, otherwise people don't understand where scores come from

### Augmented Reality Lotto

Before Scanning, the scanning page can be more obvious, like stating "Scan Me".

Interaction - people want to tap or swipe the dreamland, and also go close to see the details of the house.

Upgrading - needs more animation, maybe the previous house disappear first and then appearing animation.

Achievement Icons - not obvious, people want to click it.

Appendix A

User Testing Feedback Form

Name \_\_\_\_\_

Prototype (1) (2) (3)

Question	Answer
Do you think the app was for solution/problem solving, or for entertainment?	
How hard was it for you to navigate the app?	
Were you distracted by anything on the screen?	
Did you notice the numbers on the score screen? What do you think it means?	
Was there something missing you were expecting to see?	



# User Testing Design on Feb 12th

## Process

- Tell test subject we are making some thing related to lottery
- Let them go through the animation anytimes they want
- Ask them if they know what is happening without contest
- Tell them the testing goal and the subject
- Ask them to describe the gap between their perception and choose the one they preferred

## Result

We decided to use the first design, and add more colors, make the process animated and fits in the app art style.

Ticket	Machine
Zeeshan: Like first one	
Mikkel: More personal	Mikkel: Feel like drawing winning number
	Taka: Sencond more rewardy
Jesus: don't under stand	
Jordan: first one	
Diptoman: first one with faster animation	
Lilian: more direct	Lililan: More animated
Rammen: Like this one with more color	
Valdemar: Don't get the ticket part	Valdemar: more animations would be better
	Tianyi: Easier to associate



## Mini Game Instruction Test 1-3

### Test Propurpose

To test the way we present the introduction for the mini games

- Can user understand his/her task based on game view?
- Can user understand his/her task clearly after he/she read the introduction?
- Whether users can understand the instruction within the time limit (1 second \$ 2 seconds)
- How users think about the way the introduction is presented.

### User test flow (Steps)

#### Test A

- Step 1. Prepare Introduction & Question list
- Step 2. Showing the mini game screen directly
- Step 3. Start time of 15 sec, ask tester to explain what they should do in this minigame
- Step 4. Showing the mini game introduction ( time limit: 1 second )
- Step 5. ask tester to explain what they should do in this minigame again
- Step 6. Questions and feedback

#### Test B

- Step 1. Prepare Introduction & Question list
- Step 2. Showing the mini game introduction ( time limit: 2 seconds )
- Step 3. Showing the mini game screen, ask tester to explain what they should do to play it.
- Step 4. Analysis & Documentation

### Observation Point

1. Any frustrations and verbal feedback during the game
2. if they say they need more time to read
3. Note down the difference when they explain the game mechanics before and after they read the instruction
4. Any questions testers asked during the playtest

### Questions

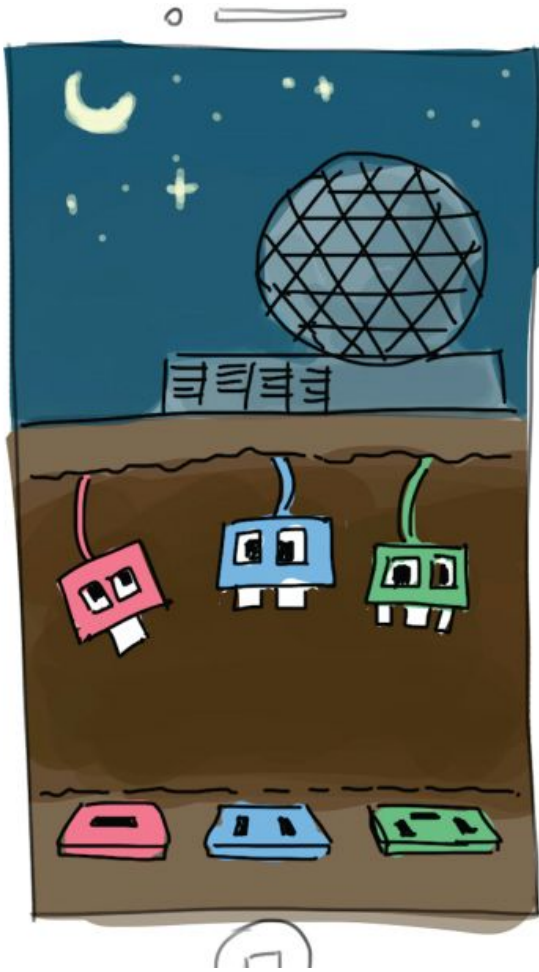
1. Are you able to understand the instruction in the giving time?
2. What do you think about the introduction's length?

### Mini Game Screen



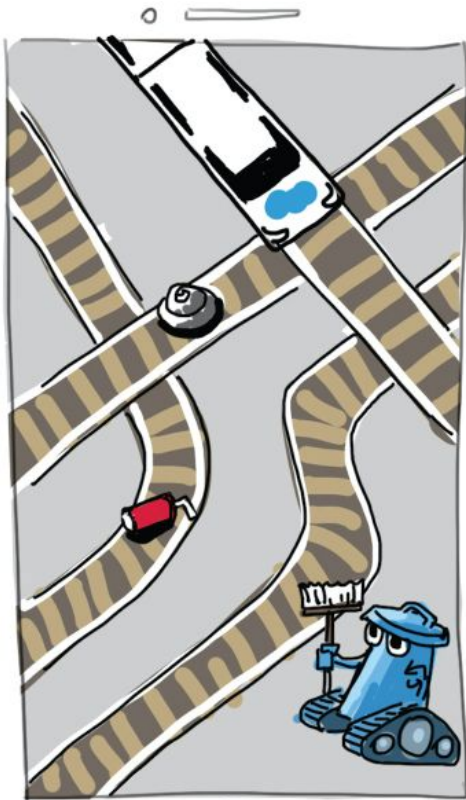
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## MATCH & DRAG

Drag the plugs to the corresponding sockets to turn on the lights.



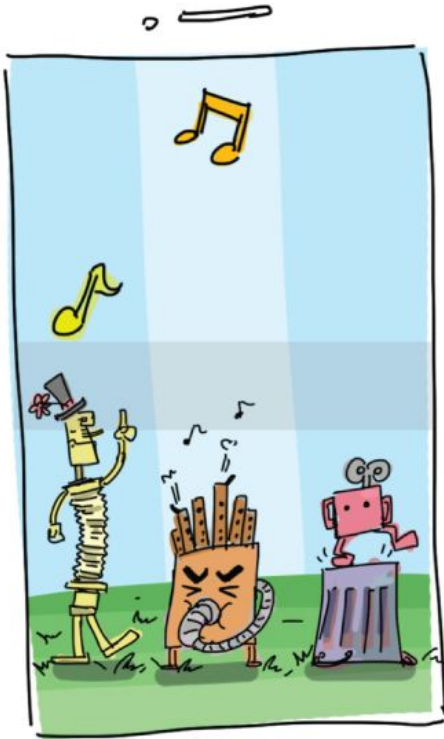
## FIND & TAP

Tap the garbage to clean all trails for the Skytrain.



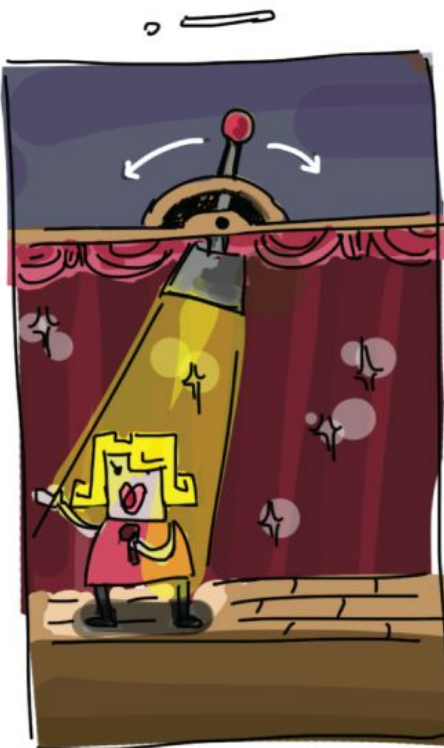
## TAP TO JUMP

Tap when the robot arrives at the optimal point to jump.



## WAIT AND TAP

Tap the right robot at right moment



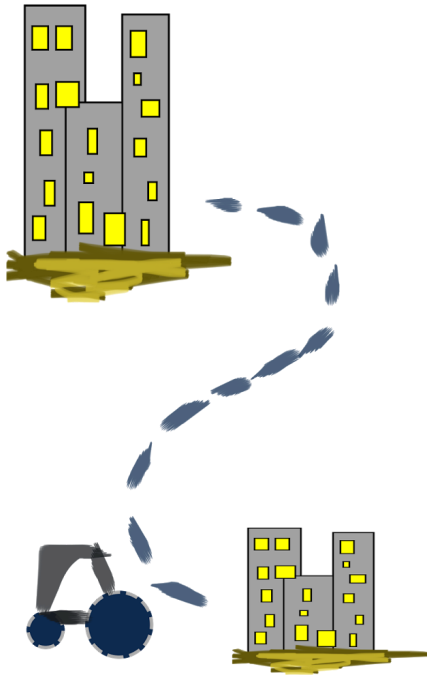
## DRAG TO ADJUST

Drag the handle to make sure the singer is under the spotlight



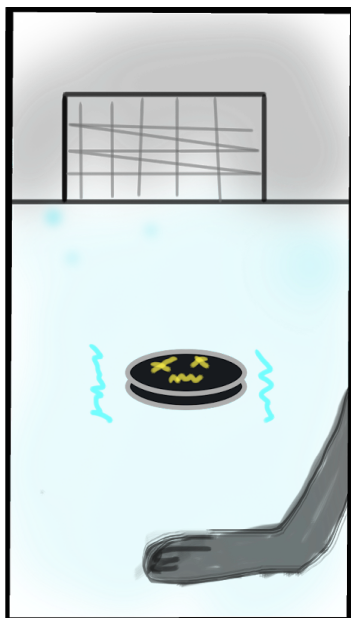
## SWIPE TO CATCH

Swipe the robot to save people  
from falling onto the ground



## **DRAG & FOLLOW**

build the road to connect two cities



## **AIM & SWIPE**

Shoot the puck into the net



## TAP TO MATCH

Tap **STOP** button to stop each slot and match at least 2



## DRAG TO THE ROBOT

Help the Robot collect the tickets with same color as the one in his ticket



## SHAKE TO ROLL

Shake your phone to roll the dice to beat the number



# User Testing Design on Mar 10th

## Test Propurse

To test players' preferences of mini game loop.

Game Loop Options -

1. Go through all the games that the player has unlocked, then level up all the games.
2. Go through all the games that the player has unlocked, then level up randomly from 6-10 games.
3. **Randomly go through 6 games from all the games that the player has unlocked, then level up the same 6 games. - easier for development**
4. Randomly go through 6 games from all the games that the player has unlocked, then level up another 6 new games
5. You can pick up 6 games at first, then level up the same 6 games. - harder for development

**Assumption** - users don't know what they want until they can compare different game loops. Or when we interview them, they will reply as I want to pick up 6 games.

Solution - Two Modes?

Random 6 / Pick 6

**Design Decision** -

If the player  $\leq 6$  games, then the player will play all the game that he has unlocked and level up.

If the player has  $> 6$  games, then the app will randomly give the player 6 games and then level up the same 6 games.

**Conclusion**

We can include a different mode in future development to let the player to choose the games they want to play before playing.

# User Testing Design on Mar 11th

## Research purpose

- To test the average time that players spend on the mini game app.
- To get a general idea which games players feel confused or interested in.

Present the first iteration of the complete mini game app to students of the CDM (appro.) that play mobile games. And we will document the time that each person spend on the app.

## User test flow (Steps)

- Step 1. Prepare testing machines (**ONE** for each table)
- Step 2. Introduction
- Step 3. Capture observations (**each production team member will be responsible for one table**, and document the time that each tester spend on the app, as well as which games are more popular)
- Step 4. Collect data, analysis & documentation

## Introduction

“After our last retrospective, we made a decision with our client to continue the production of the mini game prototype. For the last two weeks, we mainly focus on designing new mini game concepts based on user research.

Now we have a prototype for our project we’d like to test. We will give out one testing machine for each table. You can play it individually or with others. And when you get bored, you can just pass the game to another.”

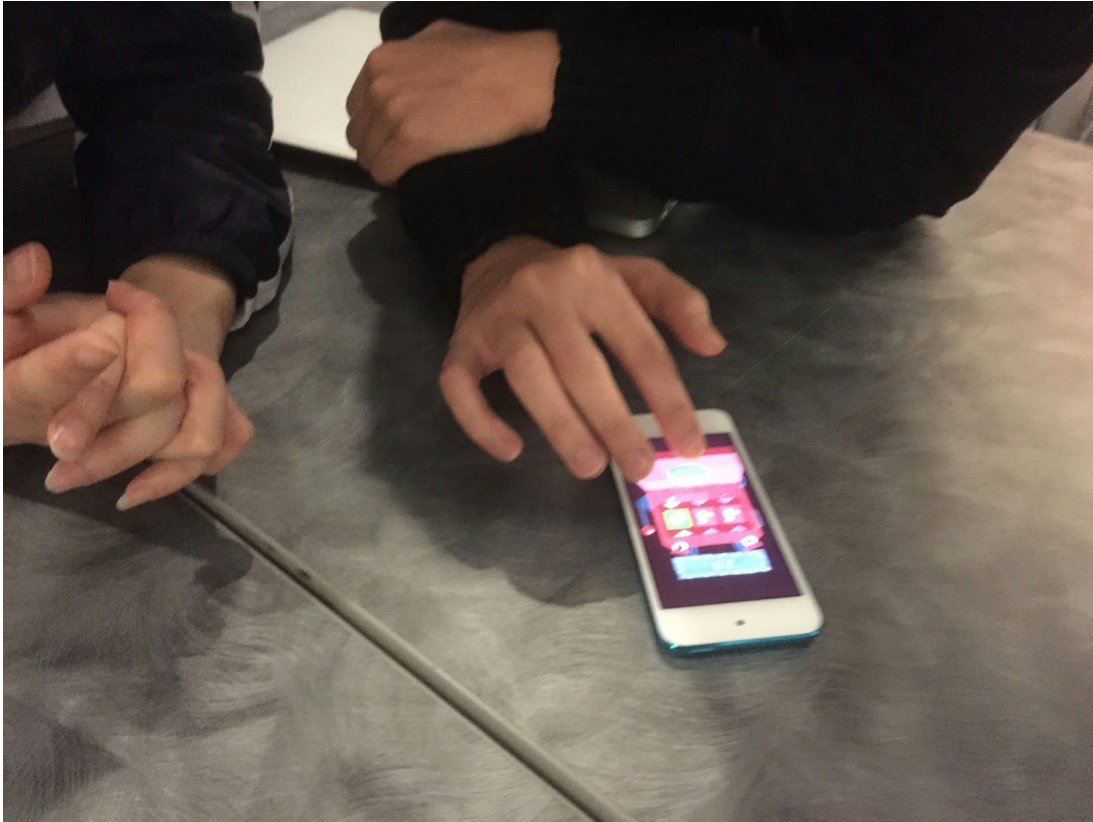
## Key Observation Points

Name	How long did s/he spend on the app?	Was there any game s/he feel confused? Why?	Was there any game s/he feel interested?	Other observations

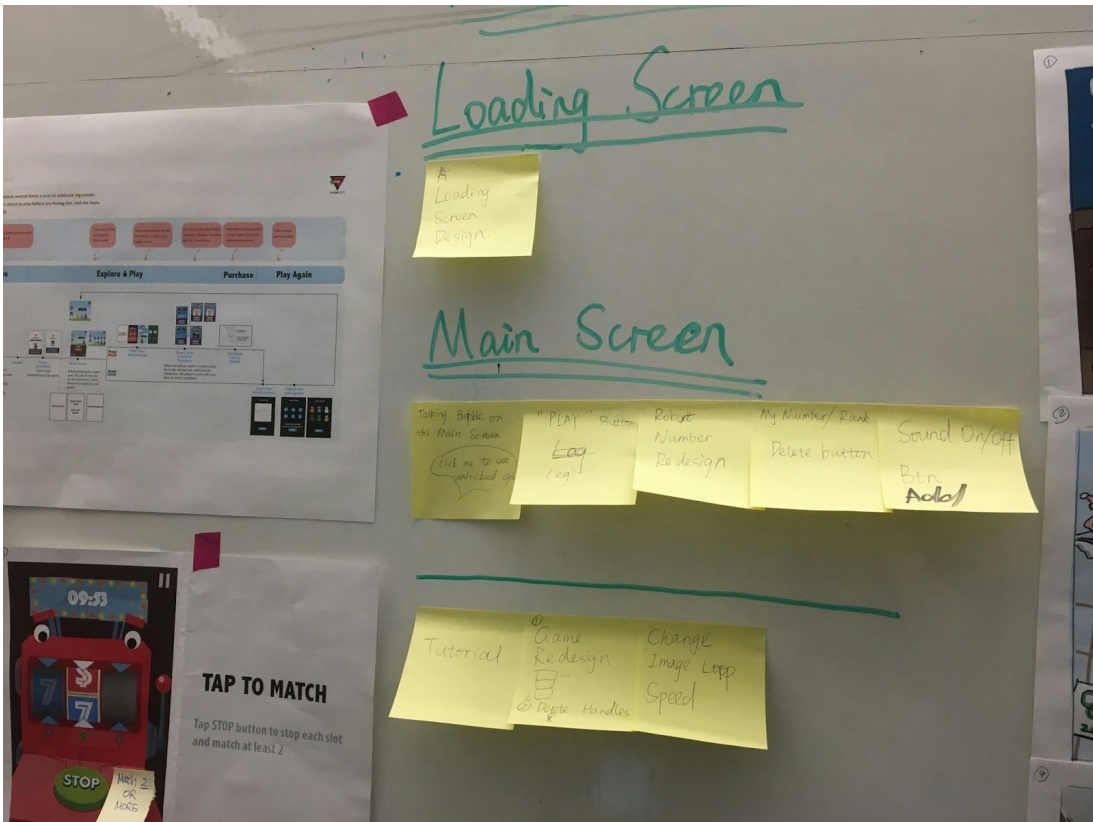


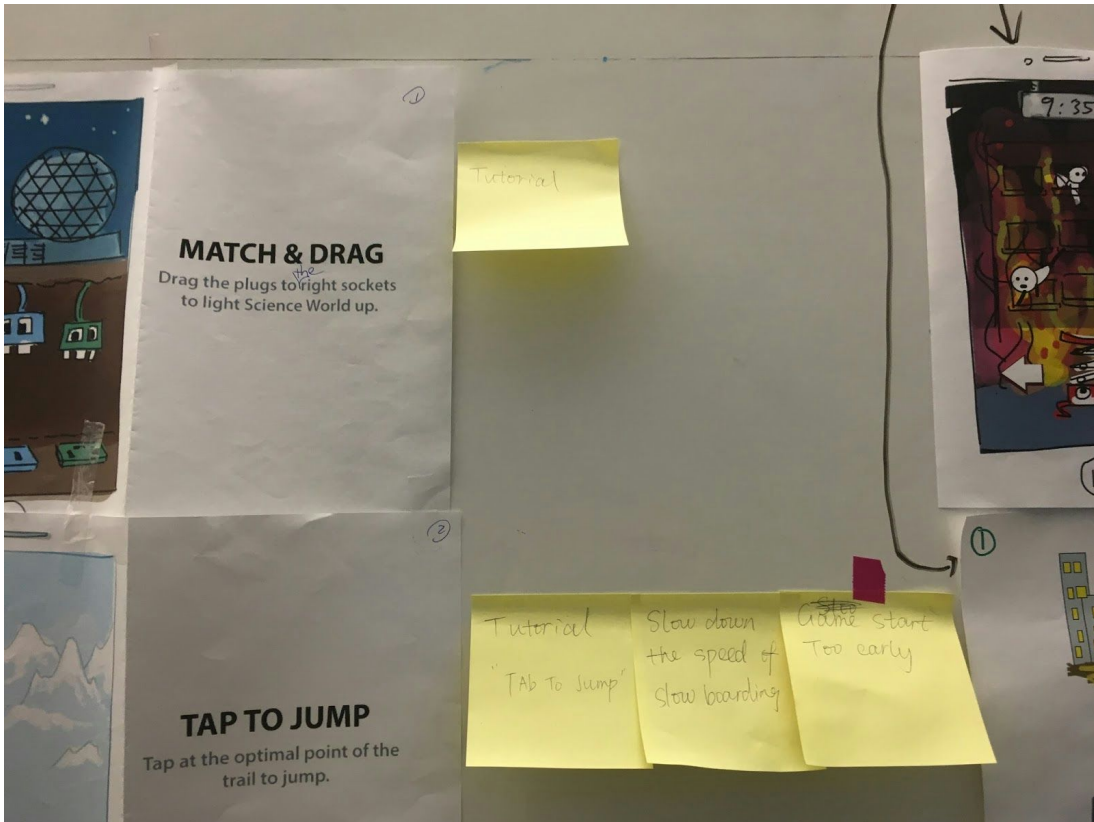
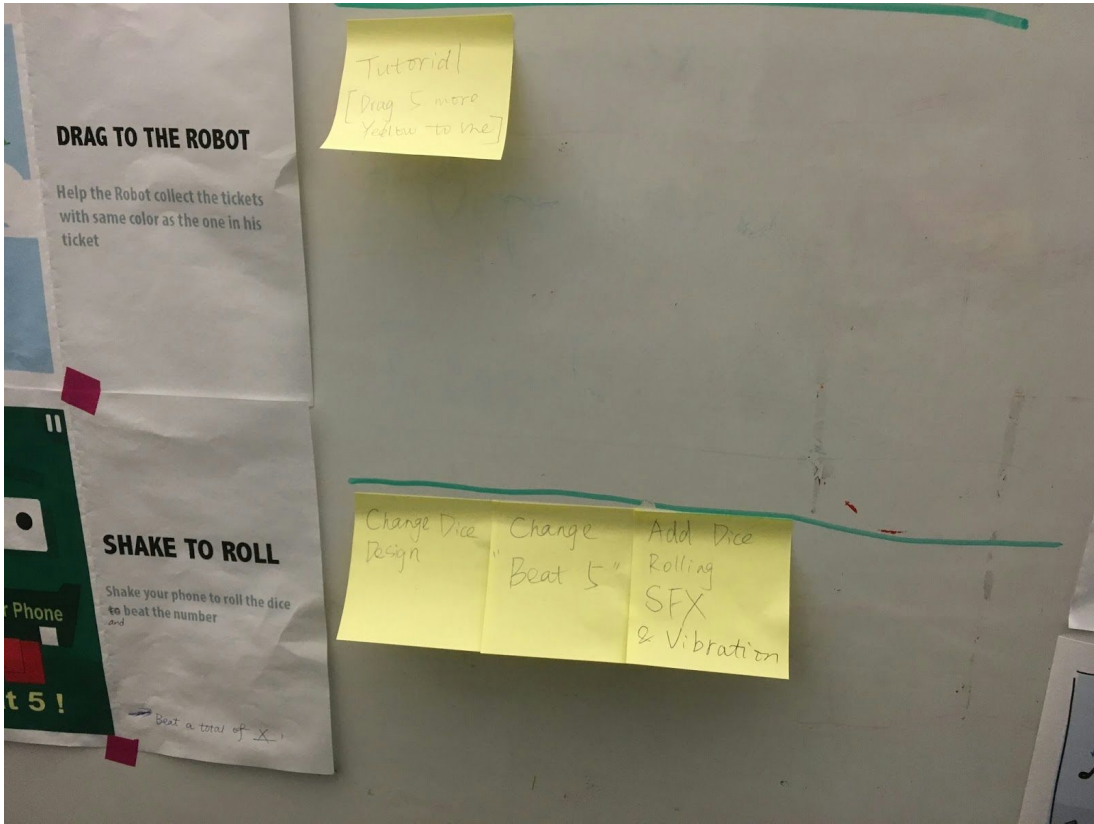
Test Photos

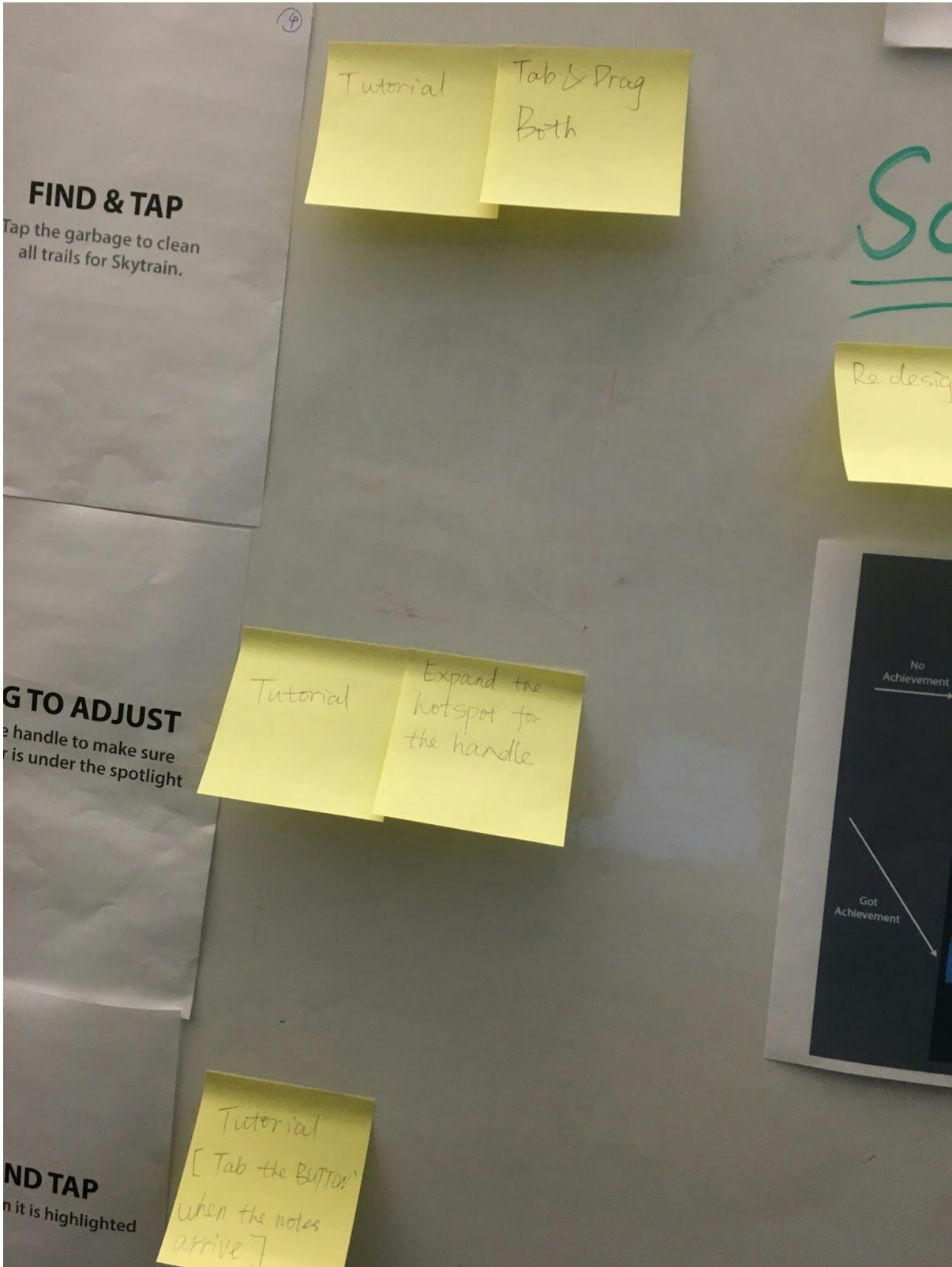




## Bug Fix List







To Be Tested

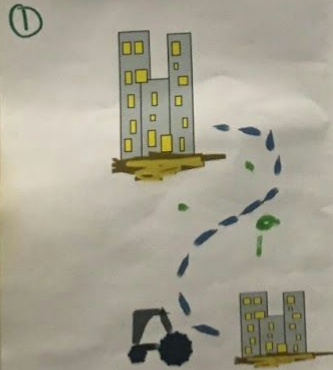


**MOVE TO CATCH**

Swipe the robot left or right to save people from falling onto the ground



Game Start  
- ability

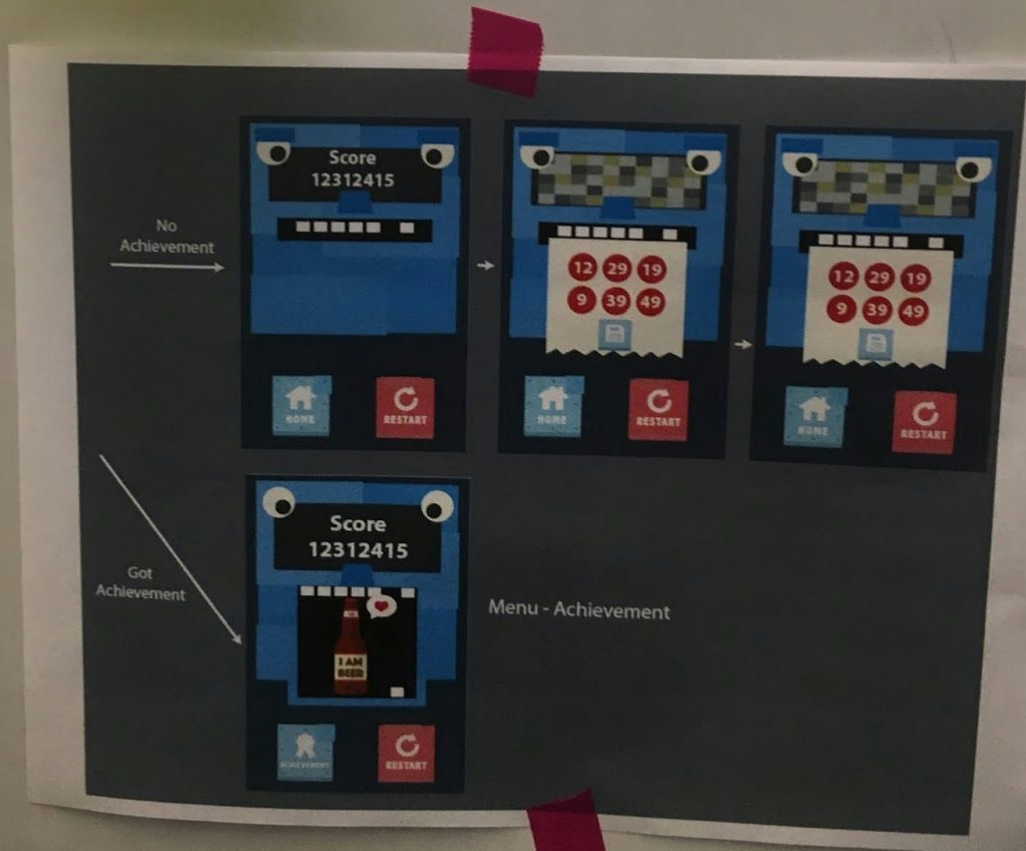


**DRAG & FOLLOW**

build the road to connect two cities

# Score Screen

Re design





## BCLC Show & Tell Demo Test Design on March 23

### Research purpose

Present the **alpha version** of the Mini Game Lotto to BCLC. To collect feedbacks about major bugs of the alpha version for fixing.

### User test flow (Steps)

- Step 1. Prepare testing section
- Step 2. Introduction
- Step 3. Capture observations
- Step 4. Analysis & documentation

### User Test Photos









# Alpha Test Design on March 31

## Research purpose

- To collect feedbacks about major bugs of the alpha version for fixing.

Present the **alpha version** of the complete mini game app to 5 students of the CDM that play mobile games. We will document feedbacks for next iteration. No identification of a person will be recorded. No names will be recorded. No gender will be recorded.

## User test flow (Steps)

- Step 1. Prepare testing section
- Step 2. Introduction
- Step 3. Capture observations
- Step 4. Filling survey
- Step 5. Analysis & documentation

## Introduction

“Our client is British Columbia Lottery Corporation. We are developing one mini game app for Lotto 6/49. So when the lottery players buy one lottery ticket, they can get 6 free mini games corresponding to the numbers they chose on the lottery ticket by scanning the lottery ticket.

Now we have the alpha version prototype for our project two we'd like to test. The purpose of the alpha test survey is to review if the Mini Game Lotto needs improvement. Please spend 5 minutes exploring and playing the game as you normally would after first installing a game. If after 5 minutes, you're in the middle of a match, please feel free to finish the match. Please speak aloud as you navigate or play the game. What do you like, dislike, or find confusing? When you finish, we will do a quick survey with you.

Do you have any questions before we begin?

Ok, Let's begin our test.

## Survey

### Name

### Navigation

1. "Did you have trouble locating anything in the menus or game?"
  
  
  
  
  
  
  
  
  
  
2. "Did you expect certain things to be in different places? If so, what and where?"

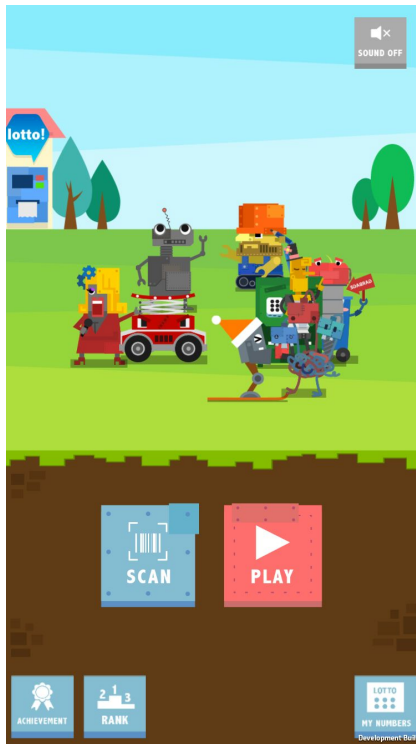
### Tutorials

3. "How helpful was the tutorial in explaining the basics of the game?"
  
  
  
  
  
  
  
  
  
  
4. "How prepared do you feel to play the actual game after this tutorial?"

### Others

5. "Is there anything you're still unsure of?"
  
  
  
  
  
  
  
  
  
  
6. "If you had a magic wand, how would you improve this game?"

## Fix List



### Start View

- Make the bubble of “Click here to see the games you unlocked” appear more frequently.
- Add scroll indicators to the character list.

### Game Tutorial

- Make the tutorials to stay longer.
- Add the function of tapping to dismiss the tutorials.

### Barcode Scan View

- Make the tutorial text more obvious.
- Make the “Home Button” work.

### Score View

- Add text or hint to indicate the lottery numbers based on the player’s score.
- Add instruction leading to Achievement wheel when getting new best score.