Chalk Throw

COMP7506 Smart Phone App Development Assignment 2

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1   Background Research

In the topic of our project, we found there are several chalk-throwing games in different platforms, such as Android, Windows, and iOS. But for iPad, there is none application we have access to in App Store China Region, which strongly drives us to design the interesting game.

Hereunder we did some background research for the similar applications to get a better understanding for the project.

1.1 Chalk Sleeper for Android

http://www.wandoujia.com/apps/pusuke.chalksleeper

It is a Japanese application for Android, and the game layout is quite simple. Assuming you are a teacher and some of the students are falling asleep during your class, so you can use chalk to wake them up. When you hit the students wrongly (hit the non-sleeping student or not hit any student at all) three times the game will over and the blackboard in the screen will show the records of your game: your score, high score and combo numbers.

The short comes of the application are obvious that:

1. The application is designed in a Japanese version and it is difficult for the player who don't understand any Japanese.
2. The background music is noisy but no option to turn off except through the volume of smart phone itself.
3. No any other choice for different level, to some players the game is even endless.

1.2 Crazy Classroom for Android

http://www.wandoujia.com/apps/com.andrphone.crazyclassroom

Similar to the first application, it's a Korean application with four students sitting in the classroom. And for these foreign applications, the biggest problem is the language difficulty for us to understand the functions. Apart from the problems missioned in the first application, this application use some extreme pictures and background music, which may have some violence effects for the teenage players.

1.3 Throw your shoes for Windows 8

http://apps.microsoft.com/windows/zh-cn/app/cb8dfd05-49db-4042-96f1-67304333a904

This is a similar application in Windows, with just one objective moving left and right in the counter. There is a swinging red arrow in the bottom of the screen where you can click the "Throw shoes" button, and the second you click the button, the direction of shoes will be determined by the red arrow and then flying to the counter. If you can hit the objective (actually a terrible speaker) in 1 minute, there will be a new page displaying "You can!" to show the result.

The limitations for the application is the range for the players to throw the shoes is just the counter, and other parts in the screen are useless.

1.4 You Dumb I Dump HD

http://www.ipadown.com/you-dumb-i-dump-hd-review

This is a good application which combines the chalk-throwing and question-answering ideas together. When the player starts the game, he can choose the course he wants to take, as well as some subclass to attend. And in a given class, there are some equations and in equations at the top of every students and the teacher can throw chalks to the students with wrong answers. And the whole game is calculated by time with a time chart in the left of the game layout. Since it cannot be downloaded in Apple Store China region, we just go through it by the introduction of the game and get a quite general understanding of the application.

As far as we can see, there still may be some possibility to improve:

1. We can set different levels for the players by changing the numbers of students, it is understandable that the more the students the harder the game will be
2. For the diversity of the game, maybe more courses can be added into the applications not just math and English.

2   Summary of our application

2.1 Motivation

In general, our motivation for the application comes from the everyday class: in the class especially in the afternoon, some students may feel sleepy and cannot pay their attention on the lecture, then what about the teacher when he sees the sleeping students? For some angry teachers, they may directly throw chalks to the sleeping students to wake them up. That's the original idea for our final application "Chalk Throw".

As the application platform, we did a detailed background research about the similar applications in the market and found that, there are some applications in Android, Windows, and iOS. But for iPad, there is none application we have access to in App Store China Region, which strongly drives us to design the interesting game.

2.2 Category

Basically, our application "Chalk Throw" belongs to the shooting category, since we can trick the 6 sleeping students as the shooting targets and the teacher in front of the classroom as the game player.

2.3 Design

For our application "Chalk Throw", there are mainly two layers: start layer and game layer, with the hand-drawing style cartoons supported by Melody LIN.
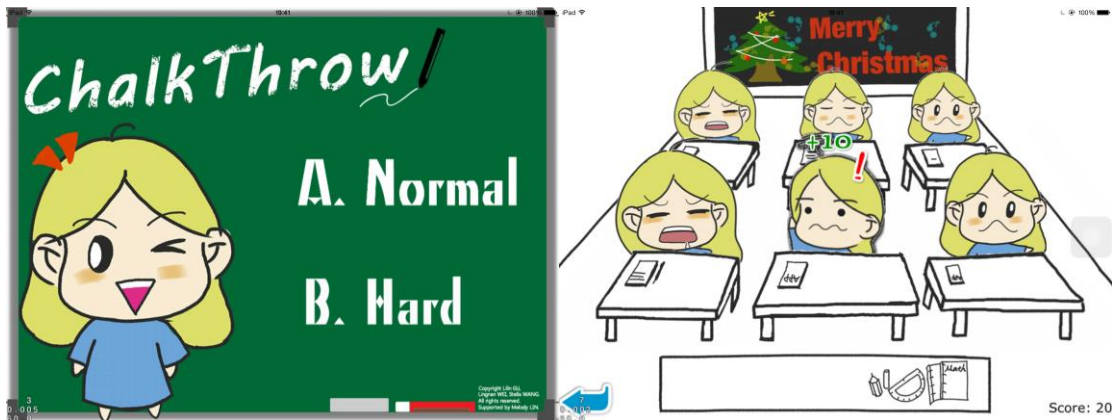
In the start layer, there is the background of the game, and the players can choose one of the "normal" and "hard" mode to start the game. In the game layer, it is a classroom, with the teacher (the player) standing in front of the counter and 6 students sitting in the classroom, who has the random possibility to fall asleep during the class.

When the player throw chalks to the students, they will see the scores of at the right bottom of the layer, one correct shooting (the player shoot the sleeping student) will plus 10 scores. If the player shoots the non-sleeping student it will minus 5 scores, if the player does not shoot on the sleeping student, he will get 0 score of the specific shooting at all. At the end of the game, there will be a display of the game result, also the player can touch the blue back arrow to go back to the start layer.

2.4 Features

As the background research, we already found some short comes in similar applications, so our application did the improvement based on them.

1. Application layout

Our application "Chalk Throw" is designed in an English layout, which is more convenient for the players to get understanding and start the application quickly. Moreover, the hand-drawing style cartoons are so smooth for the teenagers, which will not have any violent effect to them, so it is quite comfortable to play the game and get relaxation during the playing period.

2. Background music

We add some smooth background music in the application. Apart from that, some hit music are also added, when the player shoot the correct sleeping student, or when shooting the non-sleeping student, there will also be some funny music, which adds some interest during the period when we play the game.

3. Difficulty level

We designed two difficulty levels for the application, which are "normal" mode and "hard" mode. The players can choose the "normal" mode to start the game at first, after get familiar with the game, they can choose the "hard" mode to add some challenge of the game, and the random frequency of the sleeping students will be added to increase the difficulty of the game. This difficulty level choosing feature is not very common in the current application market for the similar games, but it is necessary for the reason of adjusting to different level players.

4. Target area

The target area of our application "Chalk Throw" covers nearly 2/3 of the screen. The use percentage of the screen is more than the similar application, and the players can have more interaction with the game, which is no doubt a good improvement.

5. Game result

In our application, the players can view their game result all the time, with the scores at the right bottom of the game layer. If the player has one correct shooting (the player shoot the sleeping student), he will get 10 scores. If the player shoots the non-sleeping student it will minus 5 scores, if the player does not shoot on the sleeping student, he will get 0 score of the specific shooting at all. At the end of the game, there will be a display of the game result, also the player can touch the blue back arrow to go back to the start layer.

3 Contributions of each member

Lilin GU: implementation of the chalk throwing part (including the chalk path and chalk spin), image processing and sound adding

Xin WANG: structure build up, managing the game flow and the general project, implementation of the animations and image processing

Lingnan WEI: implementation of the start page navigation, background research and documents writing

Also special support from Melody LIN for her hand-drawing cartoons for our application.