

Test Report of the First Test

1. Introduction

This file presents the analysis of the outcome of our first test, which started on the 5th of November 2015 and ended to the 1st December 2015.

The test method is introduced in section 2 and the statistical analysis is shown in section 3. Finally in section 4, we will get the conclusions from this test and make decisions to improve our later game development based on this feedback.

2. Test Method

This test aims to get the information from our target players as well as their feelings based on our original game design.

The questionnaire is designed in two parts. The first part is used to collect the information about the target audience's personal habits and interests towards different types of games. Also, their current knowledge about wind turbines and sustainable energy is also tested.

The second part of the questionnaire is based on the game design. First, the game mechanism and characters are explained briefly to make sure the participants get the concept of our game. Later, some questions are asked to get the feedback from these participants.

The link to this online questionnaire is listed below:

https://docs.google.com/forms/d/1_3O2Tfq_2nAtlIMMZf6gjjgVSl83AP50CF6Yld4DHFgl/viewform?usp=send_form

3.Statistical Analysis

In total, 45 participants completed the questionnaire until now. The results of some typical questions are analysed below:

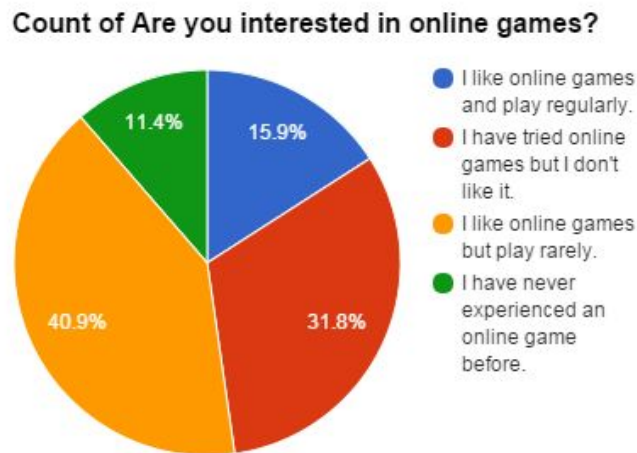


Fig 1. The result of the question “Are you interested in online games?”

The commissioners required the game to be an online game, in line with the MOOC concept. But the result shown in **Fig 1** shows only 15.9% of our target users have strong interests towards online games. So after we finished the development of this game, besides importing this game on a server, it could be interesting to make this game playable offline. Moreover, it would also be interesting to make this game playable on mobile phones.

Count of Do you like tower defense games?

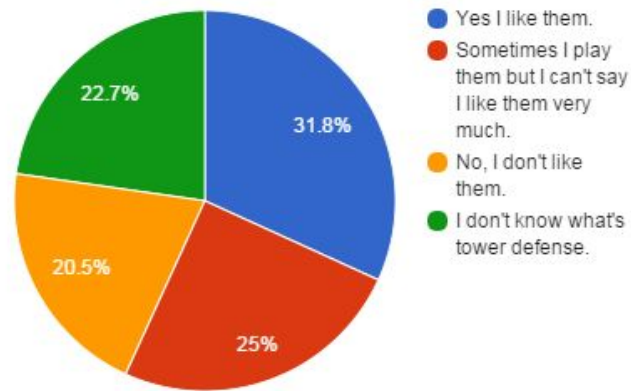


Fig 2. The result of the question “Do you like tower games?”

The basic concept of our game is tower defense. So this questions is designed to understand people’s attitudes towards tower defense games. Most people who have experienced tower defense games have interests towards this kind of game. Therefore, we insist on our original game idea to make it a tower defense game. Moreover, only 22.7% of participants have never experienced tower defense games so maybe we don't need to introduce too many things about those basic mechanisms of tower defense games when we build the tutorial of our game.

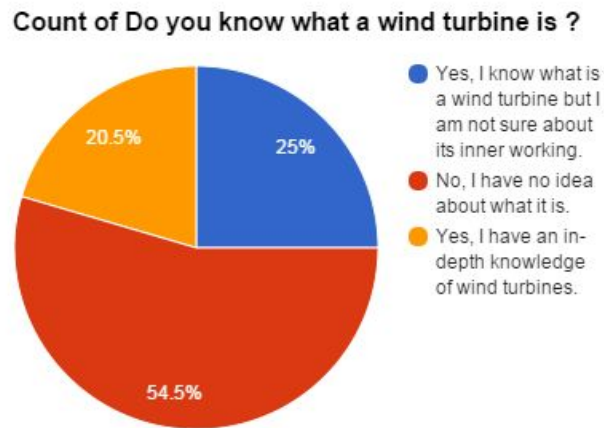


Fig 3. The result of the question “Do you know what a wind turbine is?”

Fig 3 shows that 54.5% of participants know nothing about wind turbines. This shows that the audience addressed at this point is the correct one and would most likely be best for game testing.

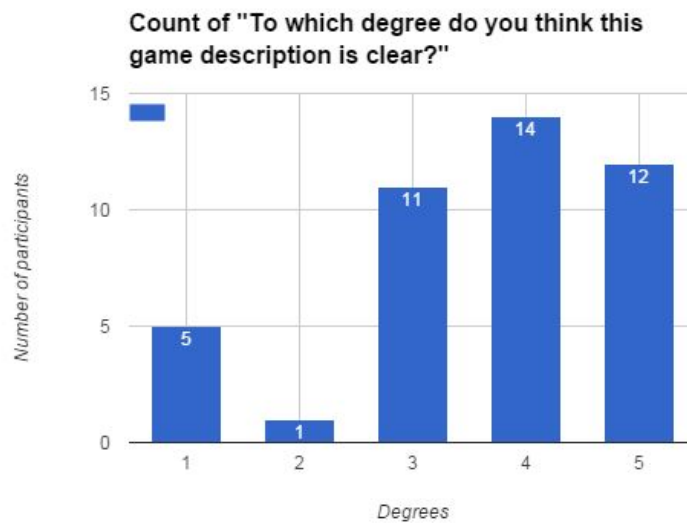


Fig 4. The result of the question “To which degree do you think this game description is clear?”

This questions is designed to ensure the participants can understand the basic mechanism of our game, while 1 means very confusing and 5 means very clear. We don't take the feedback of followed questions from people who cannot understand the game description into concern to keep the accuracy of the information we get this time.

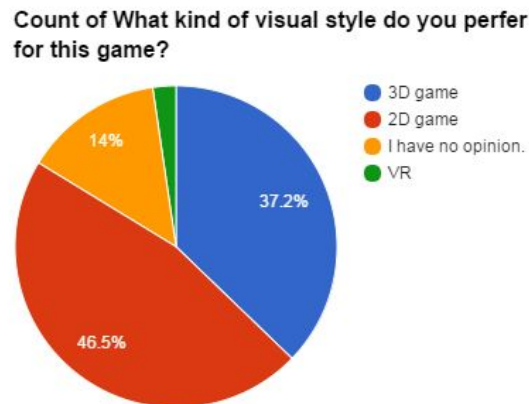


Fig 5. The result of the question “What kind of visual style do you prefer for this game?”

From Fig 5, most participants prefer a 2D game. However the 3D group can be assumed to be equivalent, and for esthetics and due to client requirements, the game is most likely going to be a 3D game.

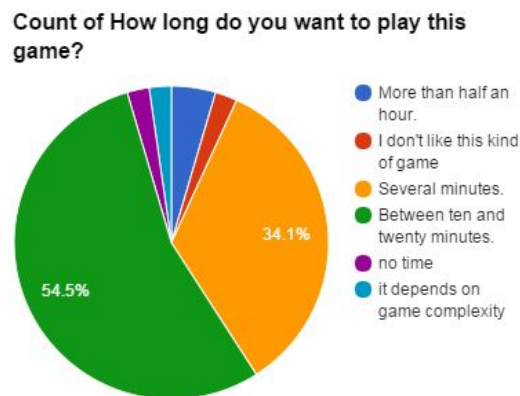


Fig 6. The result of the question “How long do you want to play this game?”

This game is designed to be no more than 30 minutes for each play. We are glad to see that people are willing to spend several minutes on this tower defense game.



Fig 7. The result of the question “If this game is divided into multiple episodes and each of them is put between chapters of the online course, and you need to finish the required chapter before you start to play the next episode of this game, will you continue playing it?”

We are surprised to see that all participants think it is a good idea to divide the game into several chapters.

Count of If hints are provided after you build a wind turbine to help you design a better wind turbine or tell you your wind turbine designs a...

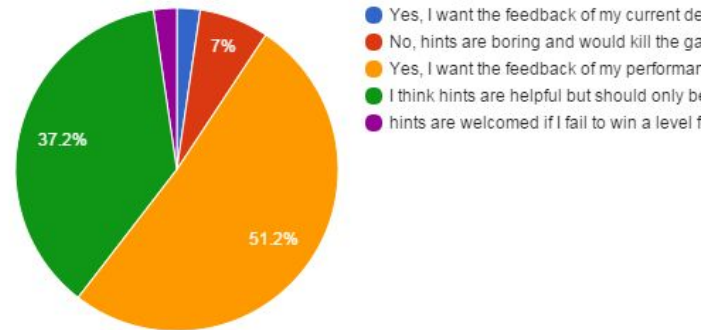


Fig 8. The result of the question “If this game is divided into multiple episodes and each of them is put between chapters of the online course, and you need to finish the required chapter before you start to play the next episode of this game, will you continue playing it?”

Fig 8. shows people’s interests towards hints. There are only two participants thinking they don’t want hints while almost all participants want to get feedback of their performance when they are playing.

4. Conclusions

By conducting this test, we collected some useful information from our target players before we start our game development. After our analysis and discussion, we made these decisions together:

- To some extent, most of our target users are familiar with tower defense games. So we insist on our original idea about the type of this game.
- There are many people willing this game to be 2D. However, in order to simulate wind turbines in a better way, we have to make the game objects into 3D objects. Therefore, a 3D game with a fixed camera angle is decided.

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- We decided to make the game into several chapters. And in each chapter, a new game mechanism will be introduced. The difficulty will increase chapter by chapter.
 - Hints for players will be added to the game and will only appear when players require them or they cannot win a chapter.