Zheng Keyang

I CERTIFY THAT THE WORK INCLUDED IN THIS PORTFOLIO IS MY OWN ORIGINAL WORK. WORK INCLUDED WHICH WAS CONDUCTED AS PART OF A TEAM

OR OTHER GROUP IS INDICATED AND ATTRIBUTED AS SUCH THE OTHER TEAM MEMBERS ARE NAMED AND A TRUE DESCRIPTION OF MY ROLE IN THE PROJECT IS INCLUDED.





Mobile Game 2015

ColorMix is a Mobile Game based on colors and reaction. It requires players to choose the right color in limited time, whether it's the color of the background, text color or the meaning of the text. ColorMix has two game modes which are classic mode and fantasy mode. In classic mode, the question will solely base on a single color card, whereas in fantasy mode, there are two or three different color cards.

Details Methods	Tools
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My Role: UX & Game Designer - Prototyping - Xcode

WebSite: ColorMix - User testing - Sketch 3

Source Code: GitHub - InVision

Teammates: Wang Tianyu, Wang Kun

Game Design

The inspiration of designing this game is from an interesting psychological effect called Stroop Effect. People often use colored words to demonstrate this effect which shows the interference in the reaction time of a task. The demonstration often states when the name of a color is printed in a color not denoted by the name (eg. word "red" in blue ink), naming the color of the word takes longer and is more prone to errors than when the color of the ink matches the name of the color.

So we use this as the ground point of the whole game. In the classic mode, player will face a card which has a word (name of a color, eg. blue) on it but the background color (eg. white) and the color of that word (eg. red) all mismatch that color (blue). There is a simple question asking the player to match the color of a given kind (eg. if the question is to match the background color, the player has to choose white). And this task has to be done in a limited time. The further the player wins the less time he will have. In the fantasy mode, we added more aspects to the game, player will have to face 2 or 3 cards before answering the question, which will ask player to match a certain color on a certain card with a time limit.

We choose totally 11 colors in the game to keep the game simple but interesting. And we use standings form Apple's Game Center and social sharing to make little competitions between players, in order to keep the existing player and attracting more.

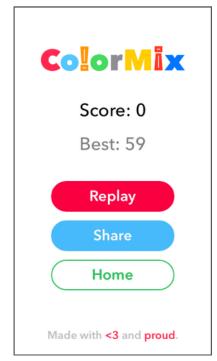


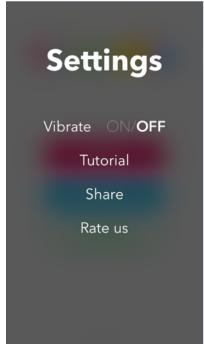


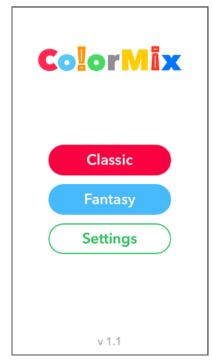
Shared Content

UX Design

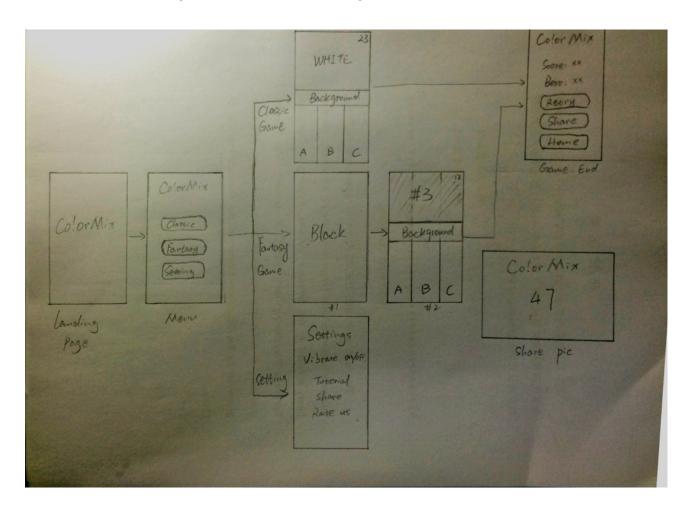
The overall style of this game is simple which matches to the playing experience. To ensure this simple feeling, we choose to use white background on landing page, menu and the result page. Also we use a gray mask as the setting page's background. The position of the the buttons is calculated to be in reach of single hand use. We also lower the button group of the game ending page to place the "Replay" button in a comfortable position for players. And the vibrating option which can be accessed through settings page will enable vibration when game ended.







Game Ending Settings Menu



Flow Chart

Prototyping & User Testing

After I finished first prototype, we tested it to get a better sense of the positioning of all objects, the possible user flow of our game and the probable time limit for the game mode. I used InVision to create several prototypes to make sure the design fit our goal for this game.

During the process we also used prototyping method to achieve rapid delivery. We used TestFlight to deliver our beta version to a variety of users for testing. At the same time I observed several users gaming process. The goal was to find places for improvement or obstacles they encountered. We evaluated the feed back from our testing users and the result of my observation to make changes in different beta versions, which includes the time limits of the game, the reduce rate of the time limits, the ratio of the three kinds of questions (color, meaning and background), the position of buttons and more.

For instance, we lower the rate of background questions because during observation I found people intended to score more points if the background questions appear more often than other two. And the reaction time to the background questions is significantly smaller than the other two. In order to up the difficulty level of the whole game, we decided to lower the appearing rate of background questions.



Final Product

- iOS
- Android

iAsk(?!+*)

Web Application 2015

iAsk (also known as "?!+*") is a question-and-answer website which focuses on technologies. Our goal is using a variety of methods to evaluate this website to find its usability problems and making the redesign to avoid them, and we finally implemented our redesign work.

It is the course project of Software Engineering Approach to Human-Computer Interaction in my junior year.

Details

Role: UX Researcher + Front-End Developer

Teammates: Zhou Ji, Zhou Jianshi

Details

- Heuristic Evaluation
- Questionnaire
- User Test
- Think Aloud Method
- Interview
- User Story

Goal

The goal for this project is to evaluate this website to find its possible usability problems. After that we would redesign the website to reduce these problems and implement the design to make the website more useful.

Research

In order to better evaluate the website, we choose three major methods which were heuristic evaluation, questionnaire and user test.

We first conducted heuristic evaluation using 8 heuristic rules constructed by ourself based on Prof. Saul Greenberg's Design Principle and Usability Heuristic rules. We found 10 usability problems on the website, and prioritize them by the severity of that problem. And we use this result as a ground base for further evaluation.

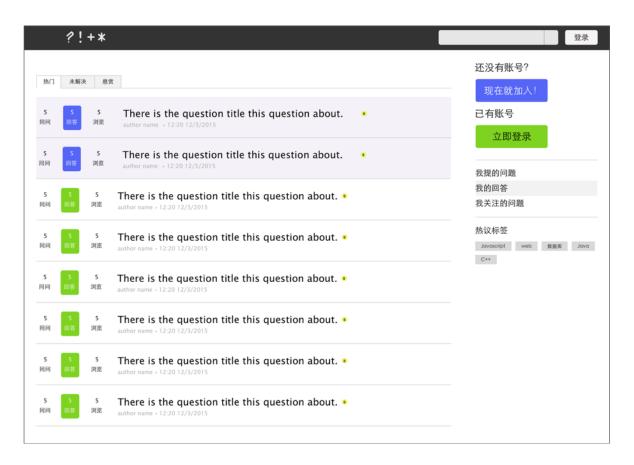
While doing the heuristic evaluation, we also conducted a online questionnaire. I designed this questionnaire to find out a base line for people's behavior on such type of website. The result would later combined with heuristic evaluation result to assist the design tasks in the user test.

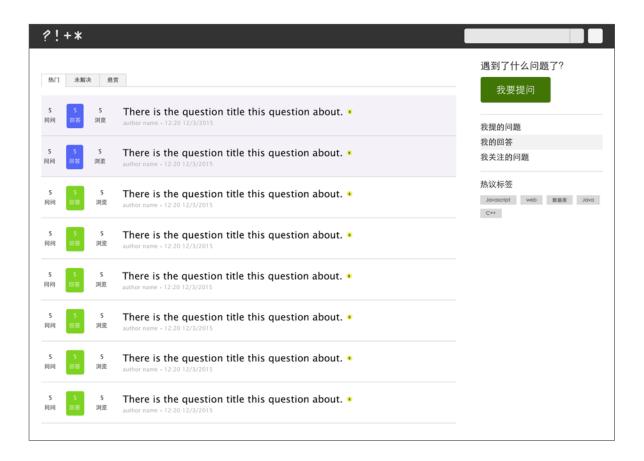
We later conducted user test to figure more specific and detailed usability problems out. We chose 10 people to attend this experiment. We use a same group of tasks for every participants but in a different order. During the test Zhou Ji was observing testers behavior including obstacles they encountered and other reactions. I mostly asks questions and timing how long to finish the task, while also taking some notes. After every test, we both would interview questions related to their former behavior during their experiment. We also adopted think aloud method towards 5 participants, I did not record time of these participants, since think aloud method would definitely affect the finish time of the tasks. After we finished our evaluation and experiment, we submitted a evaluation report for all the programs.

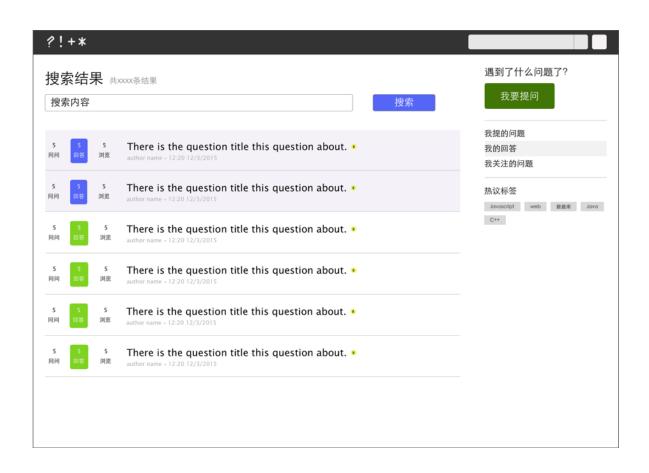
Redesign & Re-evaluation

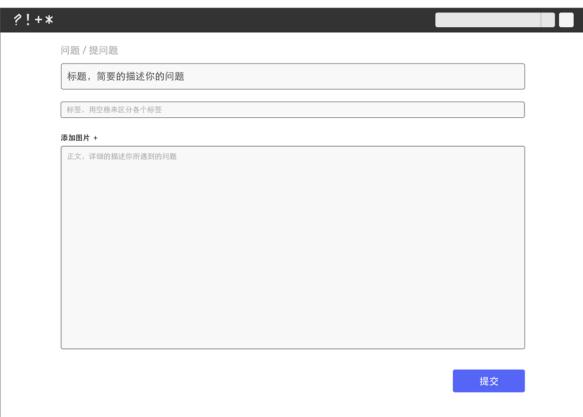
The interface of the this website was heavily changed to achieve our goal. So We chose to re-evaluated my redesign work to make sure our adjustment went the right direction. The re-evaluation was simple, so we use again the heuristic evaluation using the same rule. The result shows that all major problems have been improved.

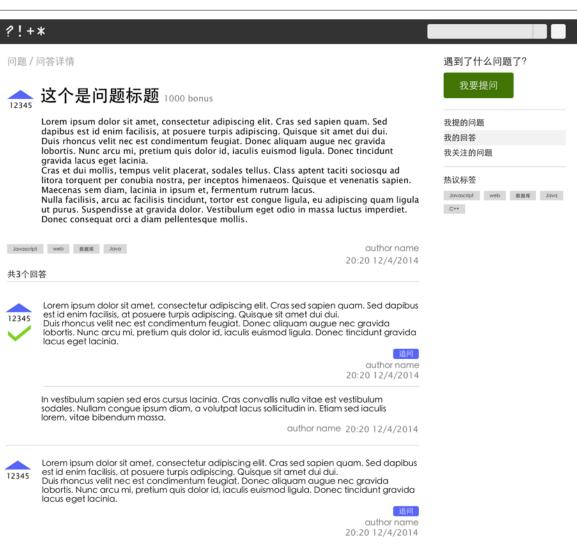
Final Result











Implementation

We choose to use PHP as program language for this website as it before. Because the change of interface was too large, we also changed some part of the server side codes. Zhou Jianshi modify the server program and data model, while I implemented the interface of our redesign. I partially used Bootstrap Framework (grid system and form) for this implementation. We tested our website after finishing the implementation, and the result came positive.

We also use the modified website to shoot a short user story video to show the major function of this website.

Reports and Resources (mostly in non-English)

- Heuristic Evaluation Report
- User Test Guideline
- Redesign Report
- User Story Video
- User Test Recording

NJUVideo

Web Application 2014

NJU Video is a website for Nanjing University Youth Committee to organize, display and share video contents.

Details

Role: Team Leader, Front-End Developer, Designer

Team: Lilystudio

Teammates: Yang Yiliang, Li Guangyue, Wang

Tianyu, Liu Lei, Zeng Jing Source Code: GitHub

Tools

- Adobe Photoshops
- Brackets
- JetBrains PHPStorm

Challenge

This is a projects completed by our team in Lilystudio. As the team leader, I was in charge of obtaining requirements, manage develop schedule and so on. Wang Tianyu and I joined to finish the implementation of the website design. Yang Yiliang and Li Guangyue were in charge of server side program.

Time was also a significant aspect in this project, we were required to finish design and develop in half month and start public testing of this website. We spent plenty time determining the real requirements of the Youth Committee to avoid, as best as we can, function changes during real development.

This is also my first time to participate in a major project as a team leader. Despite the initial struggle with requirement analysis, I managed the team well to meet the time requirement with a quality product.

Final Product



毕业季



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排行榜

- 1.千与千寻的神隐 2.哈尔的移动城堡 3.悬崖上的金鱼公主
- 4.借东西的小人阿莉埃蒂
- 5.幽灵公主 6.魔女宅急便
- 7.天空之城
- 8.风之谷
- 9.百变狸猫
- 10.阿尔卑斯山的少女

微电影



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微课程



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NJU视角 新闻·趣事·活动



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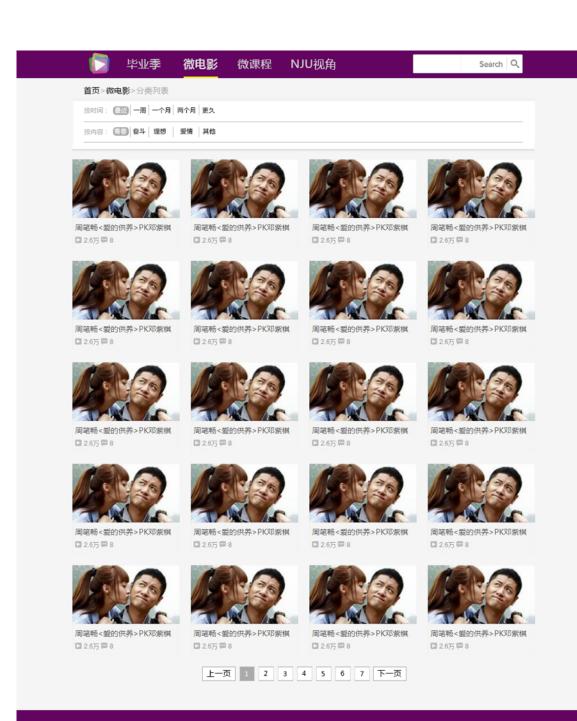








NJU Video Technical support: LilyStudio





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Posters

As the External Relations for Nanjing University Tennis Association, I design all the posters for association's activities in 2013 to 2015.

Here is 3 of these Posters.





