

01

Open the gate

Individual Work
2020.1

BRIEF

China lacks high-quality history education products for children. Compared with other countries, Chinese children are not very interested in Chinese history. However, there is an old saying that "taking history as a mirror can predict the rise and fall of the country." Learning history is so important in the development of children. When they formally received history education at the age of 13, the best time to cultivate interest in history learning had passed. To solve this problem, I designed a history learning app for children aged 7 to 11. The app replaces the thick history books with animation games that can be learned while playing, so that children can immerse themselves in the world of history. The product has a positioning function, and when the child arrives at a place to travel, he can also quickly understand the local history and culture. When they arrive at a famous historical scenic spot, they can turn on the AR function and experience the time of going back to the historical events, witnessing the repetition of the historical scene. My UI design is inspired by blue and white porcelain, and it has strong Chinese characteristics.

Key Words

Chinese history
AR technology
Children

Background

Professor Wes was introducing the history of Antwerp Belgium



When I was studying in Belgium as an exchange student, I found that the local teachers and students were familiar with the history and culture of their own cities and were very interested in the history of other countries or cities. Even some buildings that didn't look very special, they could tell me the stories about them. This makes me reflect on the history education in China.

Rethink

Outdoor



Few people set foot on the great rivers and mountains

Indoor



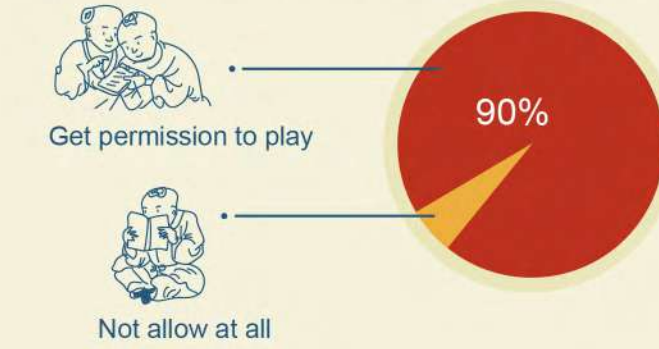
Hard to understand and thick historical books

China's history and culture are broad and profound, which requires us to study patiently. However, facing the heavy academic pressure, children can no longer have a real interest in history. Therefore, I hope to make children fall in love with Chinese history and culture from an early age, and look up at China's great rivers and mountains.

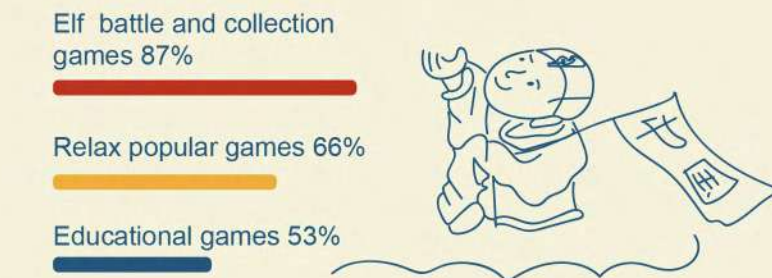
Data Analysis (Questionnaire)

About games

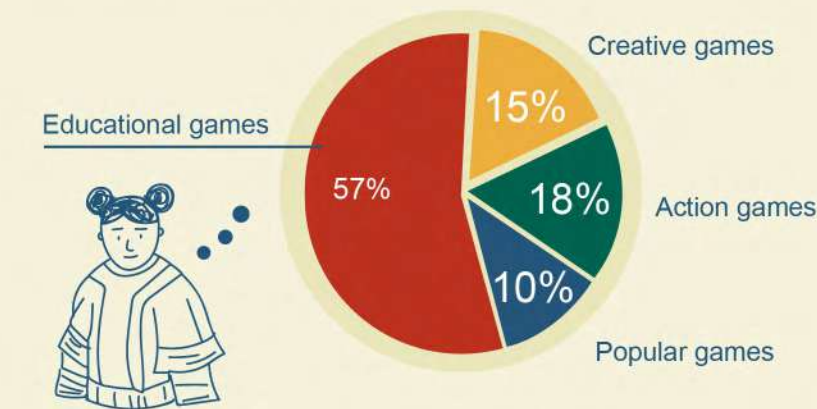
1. Children's use of electronic equipment



2. Types of games children want to play



3. Types of games children often play



Photo

Sort out the questionnaire information (250 children aged 7-11 The concrete operational stage)



About history

1. Children's interest in history

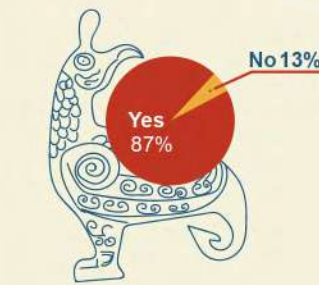


2. Children's favorite way of learning history



About city

1. The will children want to know more about a new city



2. The reason why children don't search the information about city on their own initiative

- 48% Waste too much time
Have no much time to do the search work
- 42% Existing introductions are boring
Only insipid words and pictures of poor quality make the searching work difficult to be continued
- 33% No a specific way of learning
There's too much information in search engine, it's not easy to find what I exactly want

3. The ways children like to know a city



Interview In School

To parents

- Q: How do you let your children know about history? What is the effect?
- A: Buy him history books → Inattentive and hard to insist on
 - A: Read history books to my kid → Soon forgotten
 - A: Watch historical TV series → Adapted, Addictive
 - A: Take a history course → High cost and pressure



To children

- Q: Why you like or dislike history?
- Like
 - A: Learn a lot of useful historical knowledge
 - A: Rich and interesting historical stories and vivid historical figures
 - Dislike
 - A: Too boring, waste time and do nothing to me
 - A: Too much homework, no time reading books



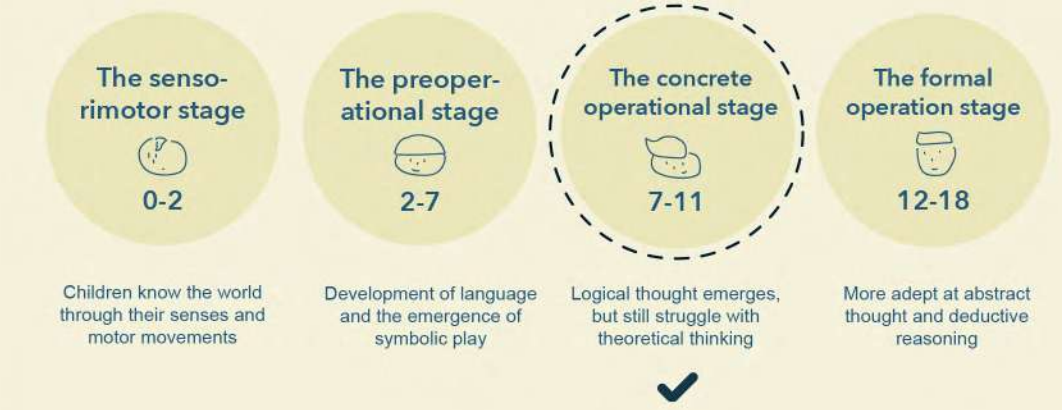
To teachers

- Q: Do you think it is important for children to develop their interest in history from primary school?
- Yes, because...
 - A: Lay the foundation of history study
 - A: Absorb the wisdom of the ancients
 - A: Develop intelligence
 - A: Learn from history to prevent making same mistakes



User Research

1. Stages of Cognitive Development



2. Characteristic

Reduce elements irrelevant to the theme, allowing users to better focus on the core content



High fault tolerance rate, allow wrong operation, weaken negative feedback

Use more diversified elements to make the picture richer



Give affirmation and support, use PBL lights to inspire compassion, and satisfy the desire to collect and unlock



Market situation

1. The market size is increasing year by year

Year	Market size (100 million yuan)	Growth rate (%)
2016	2218	26.7%
2017	2810	26.7%
2018	3480	23.8%
2019	4041	15.5%
2020	4538	12.3%

2. Online education is spreading widely

60% of elementary and middle school students have used online education products

3. Variety of products, serious homogeneity

95% Chinese Math English

Large user base

Good market prospects

Lack of products of historical and cultural education

My product

- Online Education
- Internet & Traditional culture
- Tourism
- Knowledge Paid Industry

1. High conversion rate

88.8%

In 2020, 88.8% of Chinese online learning users have purchased knowledge-paid products

1. The number of users is nearly 200 million, with a growth rate of about 60%

2. People like to play games with cultural elements

86.6%

The Internet injects vitality into the traditional cultural market and needs innovation

Year	User scale (100 million people)	Growth rate (%)
2013	0.99	42.5%
2014	0.84	48.8%
2015	1.25	56.8%
2016	1.96	56.8%
2017	2.68	56.8%
2018E	3.84	56.8%

1. The domestic tourism market is the main force in the national tourism market

Year	China's total tourism revenue (billion yuan)	Comprehensive contribution to China's GDP (billion yuan)
2015	3.7	4.1
2016	6.6	7.3
2017	7.3	8.2
2018	8.2	9.1
2019	9.1	9.9

2. The profit rate of parent-child and family travel continues to grow

"increasing income without increasing profits" needs to inject new nutrients

The Business Model Canvas

Key Partners

Provide syllabus and suggestions:

- Professors and students majoring in Chinese history in universities
- Early childhood history education practitioners
- National Historical and Cultural Research Association

Provide feedback from real users:

- Pilot educational institutions and scenic spots

Linkage with other cultural industries:

- Major publishing houses

Key Activities

- Design and develop app framework
- According to the syllabus, make the teaching content into an interactive game, and continue to iterate
- Customize AR value-added services for each scenic spot
- Bring it to the market

Value Proposition

- Improve user experience:** Attract users and increase influence by increasing professionalism and introducing new technologies for learning history and for sightseeing
- Promote education of Chinese history and culture:** Cultivate people's habit of paying attention to history and culture, and enhance cultural self-confidence
- Cultivate interest in Chinese history and culture:** Using technology and combining user needs to lead users into the world of history in a more relaxed and interesting way

Customer Relationships

Personal assistance:

- Customize different AR guides for different scenic spots

Self service:

Users can use different functions and learn different content on the platform according to different needs

Customer Segments

- Education**
 - Schools
 - Educational institutions
 - Educational platforms
- Tourism**
 - Historical attractions
 - Museums
- Government**
 - Ministry of Education
 - Culture and Education Bureaus of Provinces and Cities
- Individual**
 - Children
 - Parents
 - Teachers
 - Foreigners

Key Resources

- A team familiar with the design and coding of online education products
- Professors from different majors
- A lot of school and government resources

Channels

Online: Official account, Video account, Own website, Appstore recommendation, Behance...

Offline: Scenic spot announcements, School recommendations, Billboards

Government propaganda

Cost Structure

Fixed costs:

- Server (Tencent cloud), operating expenses, employee salaries, cooperation expenses

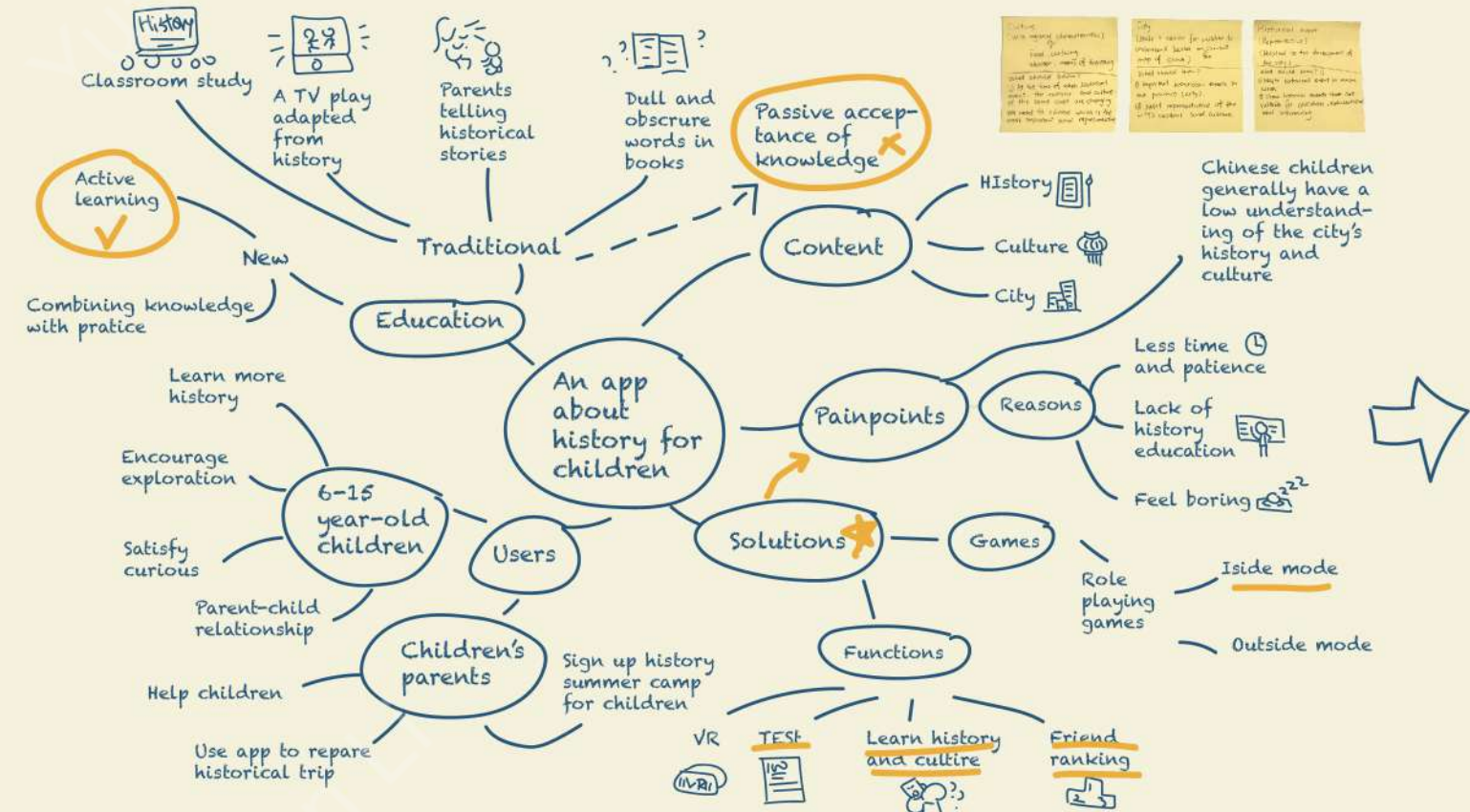
Virable costs:

- Activities

Revenue Streams

Membership fees, course unlock fees, franchise fees for school institutions, franchise fees for various scenic spots, registration fees for offline activities, government project funding

Brainstorm

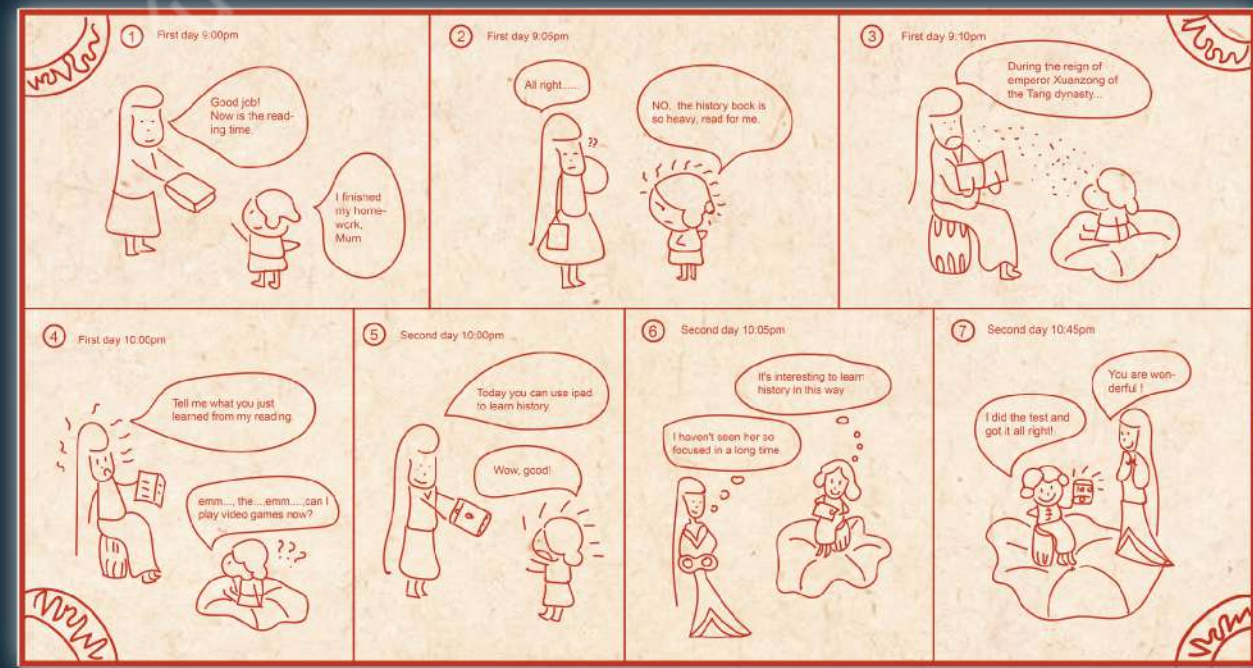


Function definition

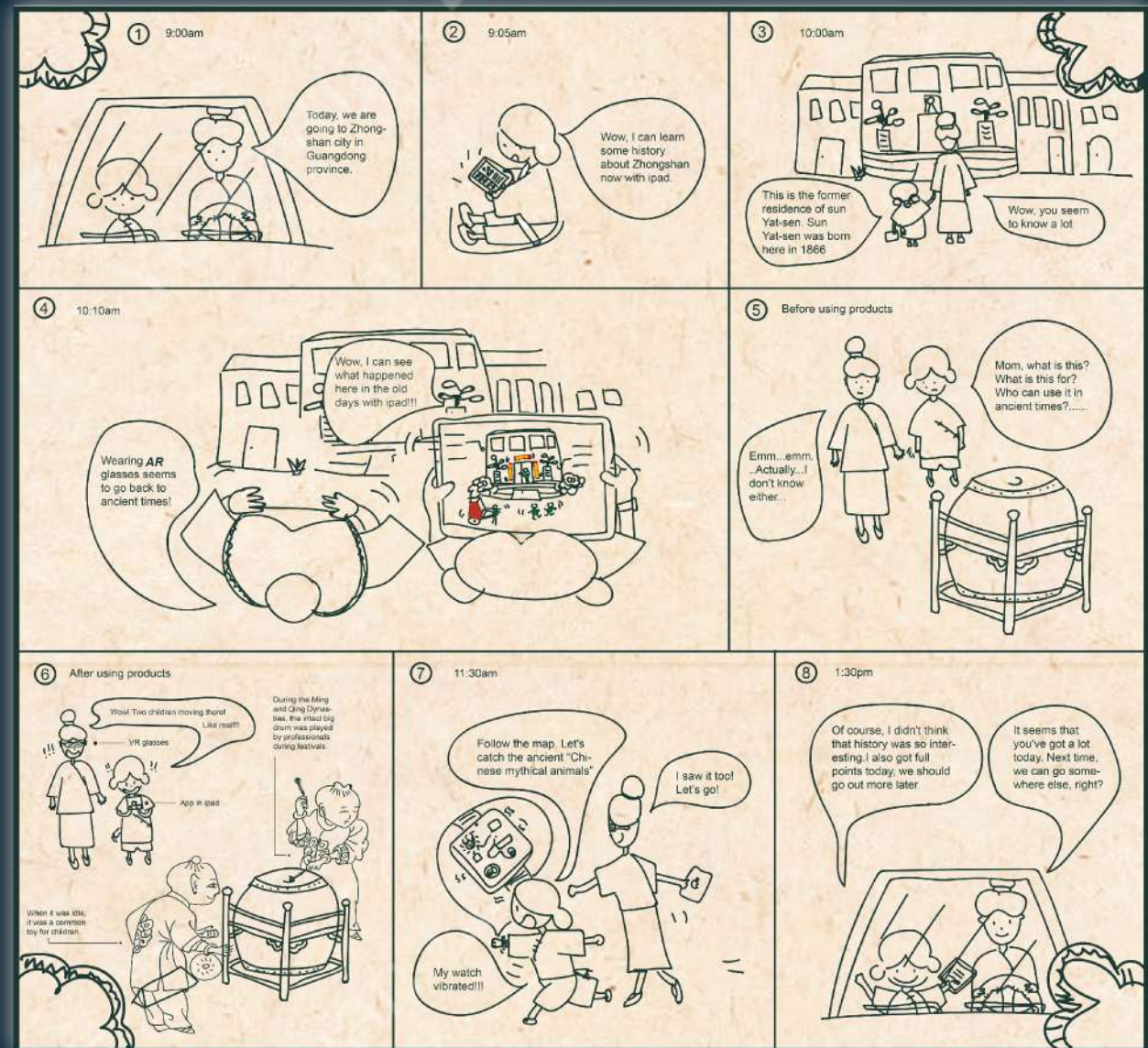
1. Interesting historical cultural stories learning
2. Little quizz
3. Record and review learning content
4. City exploration games with AR
5. Friend ranking competition
6. Children's favorite forms of play: Collect, Dress up, Explore

Storyboard

Scenario 1: Indoor Before: Bored, Easily distracted, Hard to remember After: Active learning, High efficiency, Feel interested



Scenario 2: Outdoor Use the ready and AR function of the product to make the sightseeing of historical spots more interesting and learn more knowledge



Persona

Clementine
"Take history as a mirror, know right and wrong, and infer the future"

Age: 36
Location: Shenzhen, China
Occupation: Graphic designer
Income: \$ 4000

Goals

- Let children learn by themselves
- Let children like history

Character

- Curiosity: [Progress bar]
- Spirit of exploration: [Progress bar]
- Concentration: [Progress bar]

Frustrations

- Less time to tell historical stories to child
- Can't test whether the child has mastered

Learning media

Book, Tablet, Phone, Computer, Laptop

"I often take my 8-year-old daughter to play all over the country and buy her many historical books. But she doesn't like reading history, so I can only take time to read them for her."

Beatrice
"History is interesting, but I don't want to read, I want to play iPad"

Age: 8
Location: Shenzhen, China
Occupation: Student
Income: \$ 0

Goals

- Learn history in a fun way
- Explore the historical story of the city with parents

Character

- Curiosity: [Progress bar]
- Spirit of exploration: [Progress bar]
- Concentration: [Progress bar]

Frustrations

- Can't insist on reading history books
- Historical attractions are not fun enough

Learning media

Book, Tablet, Phone, Computer, Laptop

"I like to try new things and take risks. Mom and dad often take me out to play. I have been to many provinces and cities and I like to know the story happened there."

Lauren
"Five thousand years history of China, I like it, there are still a lot to learn"

Age: 24
Location: Bangkok, Thailand
Occupation: Overseas student
Income: \$500

Goals

- See the former appearance of ancient buildings
- More convenient understanding of Chinese history

Character

- Curiosity: [Progress bar]
- Spirit of exploration: [Progress bar]
- Concentration: [Progress bar]

Frustrations

- When visiting places of interest, hard to imagine what it would look like in ancient times

Learning media

Book, Tablet, Phone, Computer, Laptop

"I like to explore historical issues in China. When I go to other cities, I will learn about the historical stories there and visit local museums."

Inspiration

1. Wonderful Painting



Basic Info
Game type: Interactive narrative
Users: Young people

Platform
[Icons for mobile devices]

Strengths

- Attractive and unique art style
- Creative interaction methods
- Show the beauty of Chinese traditional culture

Weaknesses

- Confusing game process
- Only one person can play

Influence
Challenging [Icons], Entertaining [Icons], Educational [Icons], Heuristic [Icons]

2. App of IKEA



Basic Info
App type: AR
Users: Furniture pickers

Platform
[Icons for mobile devices]

Strengths

- Change the color and material of the furnitures
- Experience different perspectives according to the height of adults or children

Thoughts

- Can it be more playful?

Influence
Practicality [Icons], Entertaining [Icons], Innovation [Icons], Heuristic [Icons]

3. Artistic transformation



Background
While traveling in Changsha province China, I photographed graffiti in the old alley. It seems to pull me back to the old China a hundred years ago.

Basic Info
Art type: Combination of wall painting and real old objects

Introduction
On the wall were painted two children riding bicycles. They wore clothes that were in line with the old China period

Strengths

- Added interest
- Creating atmosphere

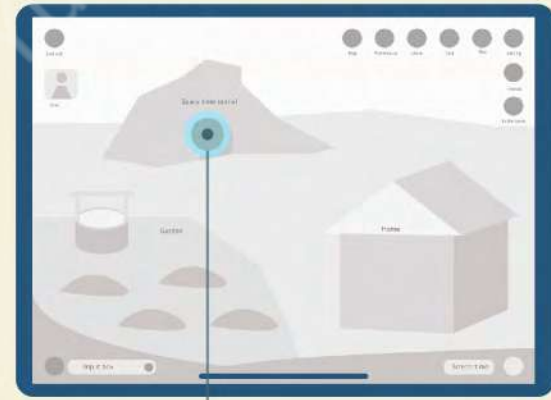
Weaknesses

- Not playful enough
- Poor interactivity
- Hard to change

Influence
Educational [Icons], Entertaining [Icons], Innovation [Icons], Heuristic [Icons]

Wireframe

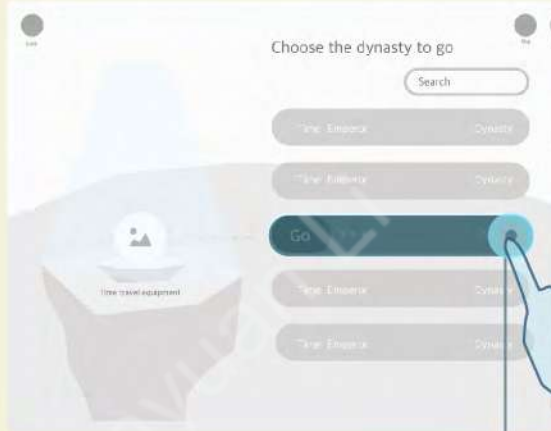
Home page



Provide users with a suitable secret base

Click "Space time tunnel" to enter the learning directory

Daily learning



Dynasty catalogue

Select what to learn and slide in



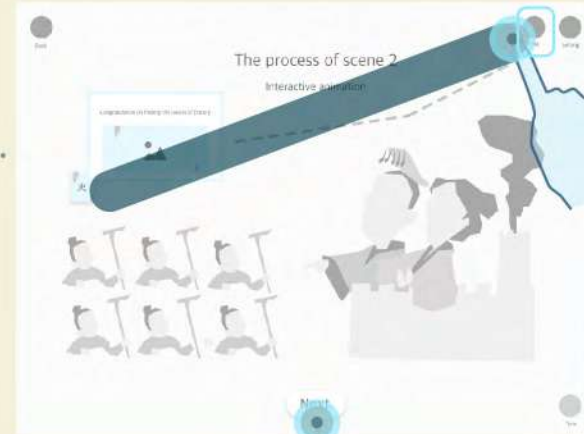
Event catalogue

Swipe to view the stories to learn and click enter



Learning interface

Show the cause, process and result of historical events in the form of interactive animation



Learning interface

Only by focusing on learning can user picks up all the pieces of history fragments



Learning interface

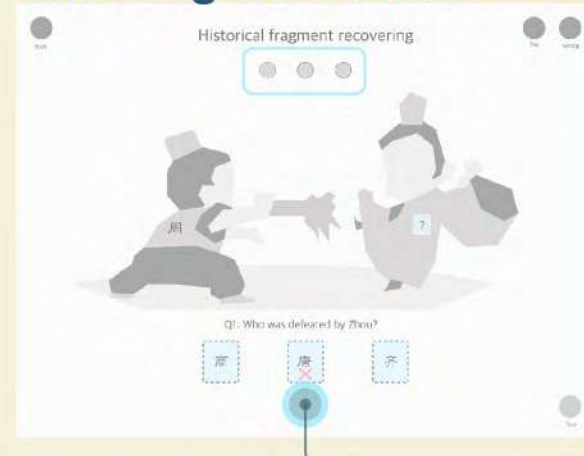
Complete the learning of new historical knowledge



Check historical fragment collection

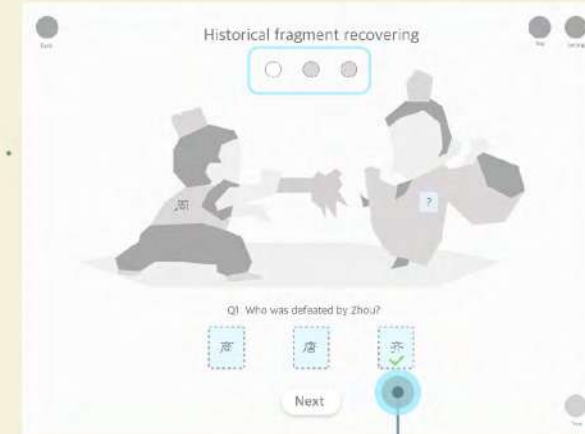
The guarantee of learning process concentration

Learning result test



Review and test learning results

Answer questions in the process of simplified interactive animation playing



Review and test learning results

Users have three opportunities to answer wrong. If they fail the test, they need to learn again



Receive awards

Put the repaired historical fragments into the backpack and receive rewards



Develop own historical map

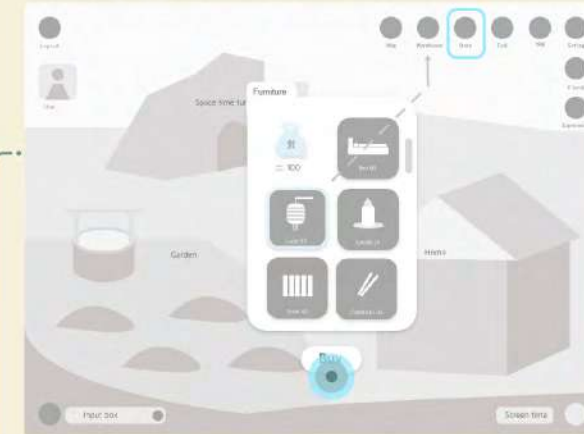
Historical map matches historical events with geographical location, learn more own map bigger



Receive awards

Rewards will be synced to home page

Function: Store



Buy things to decorate

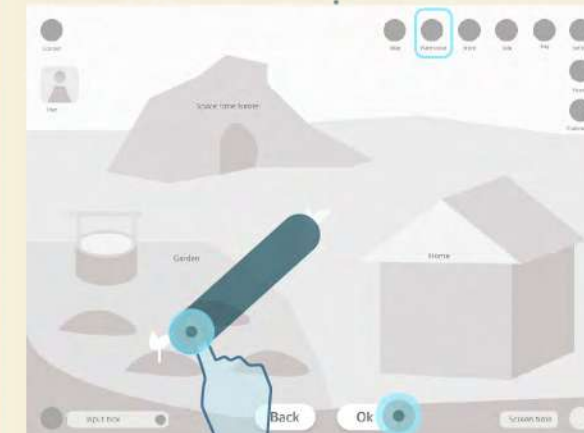
Use the reward copper money to purchase the desired items in the store and it will be put into the warehouse

Function: Warehouse



Decorate personalized

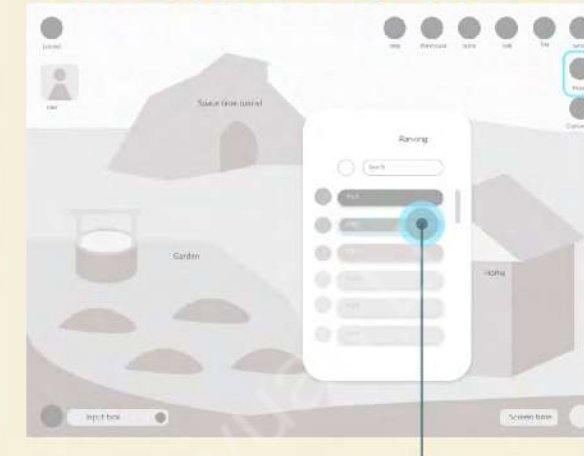
Drag the selected seeds out of the warehouse



Decorate personalized

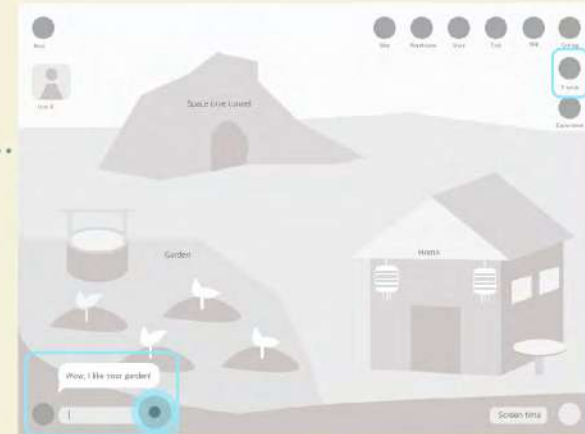
Plant flowers that represent each city. When they bloom, you can learn about the story of these flowers

Function: Friends



Ranking & Visiting

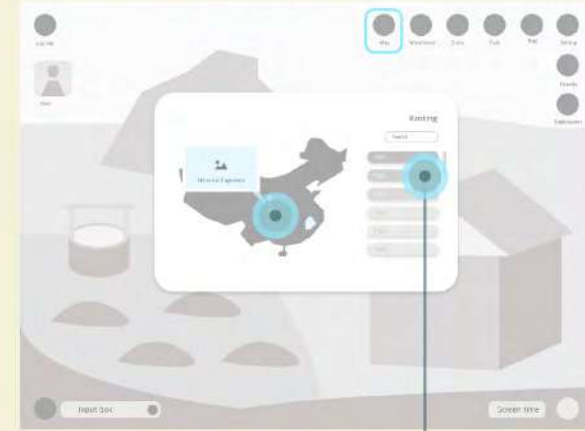
In the friends list, you can view the ranking, add new friends and visit friends



Message & communication

When user arrives at a friend's space, user can leave a message for him

Function: Map



View results

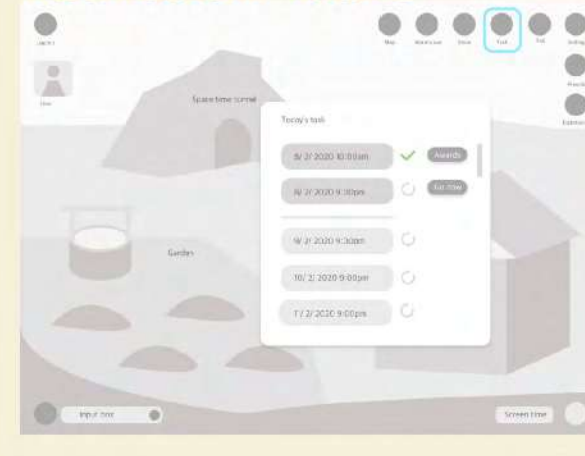
After each learning of a historical event, the place where the historical event occurs will be added to your own "map"



Ranking

See the map of friends and promote the formation of a healthy competitive relationship

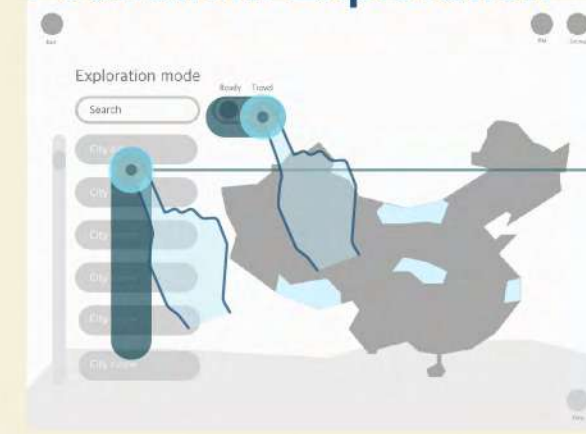
Function: Tasks



Study in a planned way

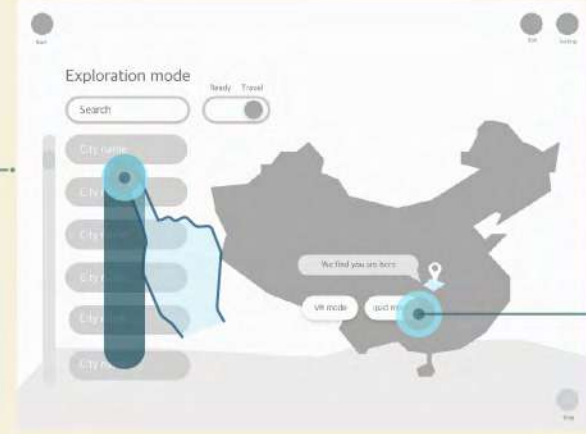
User will be rewarded for completing learning tasks on time

Function: Exploration



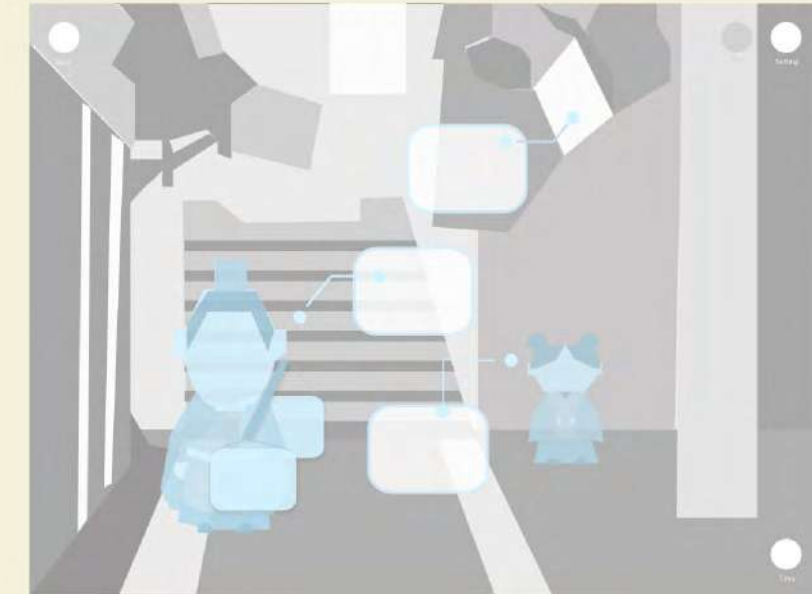
Ready mode

Choose the city users are going to travel in, learn in advance, and make users' travel more meaningful



Travel mode

Automatic detection position, VR mode can be turned on



AR mode

User can choose AR glasses or ipad to see historical scenic spots, it will make user feel seems to be in ancient times

Function: Time control



Protect eyesight

15 minutes for one study, 5 minutes for one test, 30 minutes in total

Logo design

App name



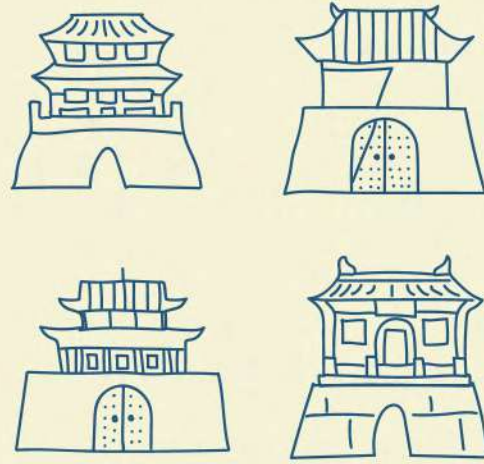
City gate plays a very important role in ancient China. When the gate opens for you, you can hear the distant call from the ancient city of history.

App style



China is the hometown of porcelain, **blue and white porcelain** is one of the important representatives of Chinese ceramics.

Sketches

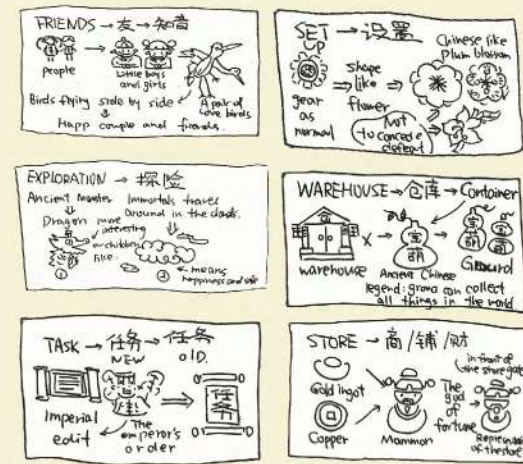


Icon design

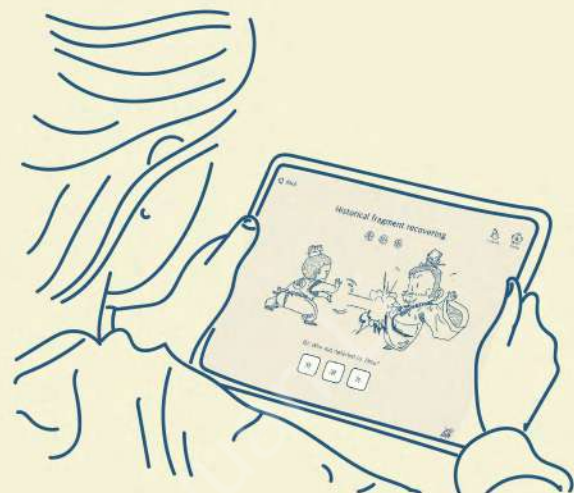
Seal cutting in China



Sketches



Test observation



Observation duration

- 7min: Decreased concentration → Big event cards appear every 5-7min
- 15min: Confused when using the function of "friend" and "map" → Merge two functions
- 35min: Eye fatigue → 30min → 30 minutes per study

Test learning results (Learn same content)

Tester	learning style	Time spent	Knowledge mastery
	Learning&Testing fuctions in app	30min	100%
	Learning fuction in app	20min	70%
	History book	50min	50%

OPEN THE GATE

THE CITY GATE OPENS,
WELCOME TO "XANADU" !

vimeo

<https://vimeo.com/662604883>



SOME TIME AGO, THE HISTORICAL PUZZLE IN THE TREASURE HOUSE WAS STOLEN BY THIEVES. YOU ARE THE CHOSEN LITTLE HERO. GET READY TO OPEN THE GATE OF TIME TO RETRIEVE THE HISTORICAL FRAGMENTS THAT YOU ARE LOOKING AT!

Indoor

Courtyardhouse of Beijing



After the user scans the picture in the book, the 3D appearance of the courtyard will be displayed on the mobile phone

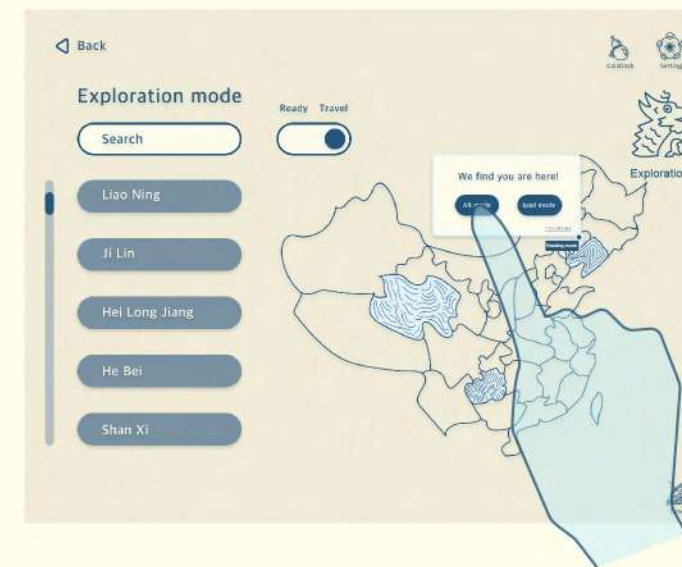
With historical check-in passports and other accessory products, children are encouraged to experience Chinese history and culture in the ancient city of Beijing

2021 Joined the compilation of the series of "Grandpa Tells Children about Beijing" by Hanhan professor

Outdoor AR function

AR technology will be improved in the future:

1. Smart devices will be equipped with more powerful chips and processors
2. The arrival of 5G Era

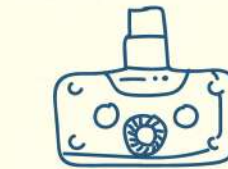


AR



AR function can only be used at designated places

VS



VR

Lying in bed can also immerse in VR world

1. Encourage people to go out of their homes and feel the real world

2. Encourage parents to take their children out to explore history, instead of giving them VR glasses directly

Better to use during the epidemic

Cooperate with government cultural and tourism departments

App

