

Design Thinking Assessment 3 Design Proposal *Closer*

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Definition of the Design

Social interaction, Cultural barriers and Language difficulty

This design has been driven by the 2 key aspects, which are the importance of social connection and sharply increasing amount of international student. They might look irrelevant but these 2 aspects have deeply influenced international students' daily lives and studying experiences during overseas. Human being is social animal (Haas et al., 2016). This feature distinguishes us to other living beings. Human needs social activities. Human wants to be related to other people, like the family, friends, and so on, and also, social connection is a subjective sense of people who closely and positively experience a relationship with others (Seppala et al., 2013). It gives us the perception of belonging, which is telling us that we are a part of the community, a part of the society.

On the other hand, the tide of studying abroad is overwhelming, especially in Asian countries. Western countries have highly advanced education which makes them become the Mecca for foreign students to go abroad for further gain. China has contributed more than 1.4 billion international students in 2018 (ABC news, 2018). In Australia, more than a half of international students are from Asian countries (Australia Government, 2018).

Students from non-English speaking countries are under huge pressure because of language difficulty and cultural barriers. According to Sherry's research, international students' daily lives and studying experience have been negatively influenced by language issues, cultural barriers and lack of understanding (Sherry et al., 2010). In consideration of the given 2 main aspects therein before, this situation is very serious and need to be solved as soon as possible.

According to our assignment 2 research and further explore, the problem space has be defined as:

Language difficulty of international students from non-English speaking countries.

Lack of social connection with native/foreign people in campus.

Lack of understanding by other students including native students and students from other countries.

International students often don't have common chat topic with native students which makes them not in touch.

Many international students would feel embarrassed about their English skill when they are talking to local people, which prevent them to communicate.

Some international students don't want to talk with native people because of lack of knowledge of local culture and habit.

Native students feel that international students don't want to talk to them but they don't know why.

Project Introduction

This design project aims on creating a bridge between international students from non-English speaking countries to native students, to design a solution to deliver compassion and empathy between the 2 target groups. This project will deal with language difficulty and cultural barriers that they have encountered, in order to close the gap between them, and improve understanding to each other.

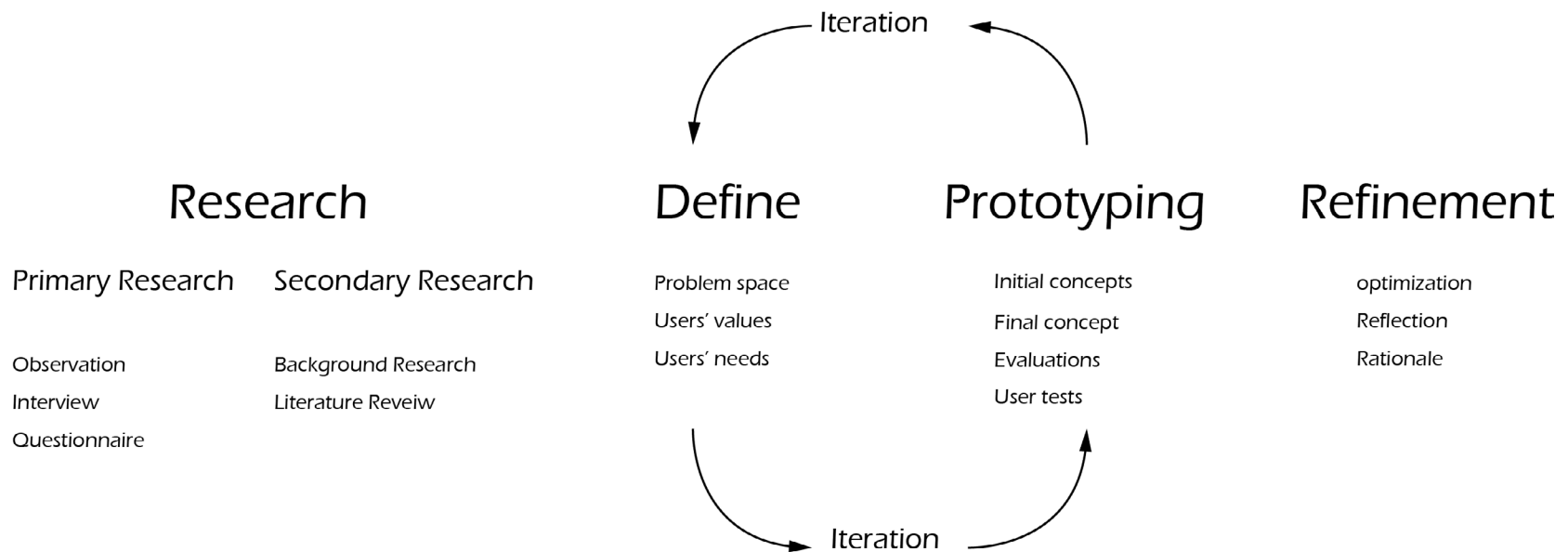
According to the research, Chinese international students have the lowest average English skill and the largest amount, due to its large amount of population and various levels of preceding English education. This design process will mainly focus on them as our first target group. According to the previous surveys, the problems have been addressed, including poor English skill, weak understanding, cultural differences, lack of understanding from others, different values, different habits and behaviours, different 'common sense', lack of social connection, and overall, lack of local friends. There are too many aspects for Chinese students to overcome, which make them under tremendous pressures.

This project is going to design an online platform to improve the relationship between international students and native students, especially the international students who are from totally different cultures. This product could give users a whole new environment to chat without embarrassment. We expect this platform could let users release themselves, and talk to others regardless of their language skill, behavioural differences, and values. In our opinion, the functions have to be valuable and practical in order to attract users. This application will gather people by common interests, common subjects and even teaching native students other languages. International students need some help from native students, and in order to help them, we are trying to find something from international students which can be shared and useful for native students, mutual benefit for both international and native target groups.

Design Proposal

The whole design process has followed the double diamond design method in order to have the optimum design solution. The top-down research approach has been applied for the researching step, to break down the modern situations of international students, gaining insights from various methods including primary and secondary researches.

This design process is not a one time linear process. It has been iterated for several times, including redefining the issues, reevaluation users' needs, augmentation, combination and simplifying functions that our final product will be equipped with, etc.



Background Research Summary

Background research and user research have been conducted in order to identify the specific issues and needs of the target groups. The background research focuses on the surroundings around our target group to illuminate why the issues are existing ubiquitously. The user research will explore target groups' subjective perspectives of the issues to identify users' needs by users' opinions.

Team members' background researches have been assembled and refined in this step. According to the issues that we have narrowed down, we need more information about the current situation and living experience of international students. The significance of social interaction for international students will be explained and why it need to be solved urgently. We have mainly focused on 2 areas to conduct our background research.

1. The importance of social interaction

Human's living conditions are changing along with their needs. After the subsistence problems have been solved, people pay more attention to their mental needs, some sorts of higher level needs according to Maslow's research (1954). Belonging is

a deep seated human need. People communicate with each other and associate with social communities. People will have a strong sense of loyalty and commitment when they have engaged into a social group (Peter, 2018). Being isolated and distrust by a group or community will lead to mental injured for a human. Self-esteem and self-evaluation are also essential needs for human being (James, 1890). Recognition and respect from others make people feel meaningful. Hagerty (1996) points out that the connection between people and their perception of the relationship are important for investigate physical and mental health. Social interaction plays an important role in every individual's life.

2. International students in Australia

Because of the tendency of globalization, studying abroad has become much more popular for many countries. The population of international students has increased sharply from 2004 till now. The population of overseas students studying in Sydney has been doubled in only 10 years. According to Sydney Morning Herald's survey, the number of Chinese students has occupied more than a half of total international student amount.

Research Findings

Especially in the major universities such as UNSW, USYD, and UTS, $\frac{1}{2}$ - $\frac{3}{4}$ of the international students are Chinese. Also, nowadays the market of international education has considerably huge amount in Australian export industries. John Gapper from Financial Times has labelled the Australian tertiary education as a 'core industry of city-states in a globalised world'. International students with $\frac{1}{4}$ total population of university student have paid more tuition fee than domestic students. The huge amount of international students has enlarges the significance of the issues, and also, the international students deserve good education and necessary assists during studying overseas.

Cultural barriers and language difficulty

International students confront many challenges in Australia nowadays. According to the survey (Sherry et al, 2010), international students commonly feel they are facing numbers of cultural barriers including the problems with language, social isolation, finance, homesickness and many other problems. Which can be defined as the major vulnerability of international students comparing to native English-speaking students. International students studying in a different surroundings would

feel helpless to create its own social network. It also refers to a 'cultural shock' (counselling center, 2018). Moving from their own culture to an unfamiliar culture, too many new things and new information swarming into one's mind makes the student feels nervous and stressful. And also, language, 'rules' of behaviour, values, are also different to the culture where is the student from. For many international students, English is a foreign language, and they only have to achieve an IELTS 5.5 points to meet the entry requirement of language. English skill would constrain their academic achievements (Trenkic, 2018), and also impedes their communication with native English speakers. Learning new sophisticated knowledge in a second language is a big challenge for them (Baik, 2012). To adapt into that is time consuming, and it could also conflict with their first languages. The way of thinking for Asian students is different to a western people. The inherent cognition makes them adapt the new culture and language slowly.

Research Findings

Finding Outcomes

1. Most of the participants who are from non-English speaking countries are confronting language difficulties, because of the lack of abroad experience. Their English skill doesn't allow them to communicate with native students fluently.
2. Most of the participants cannot express their thought clearly. Sometimes they have good ideas but they don't know how to describe. The local people's accent, slangs and speaking speed are also the impediments for them to understand during conversations.
3. Because most of them have been here for a short time so they still don't have local friends. They live with the people from the same country as them, and interact with compatriots as well.
4. Participants feel they are more or less socially isolated from the native society, because their language skill has more or less impeded their interaction and activities with native students, and their expression during conversations.
5. Participants feel shy/embarrassed when they ask the teacher/native students questions. They are afraid to be considered as uneducated or who doesn't take studying seriously.
6. Participants strongly agree that there are cultural barriers between them and native people. This issue is very significant as we mentioned in the previous sections. This cannot be ignored.
7. Participants from non-English speaking countries also strongly wish they could get assistance from native students, which also approves that most international students are in an unhealthy condition. Due to participants' different characteristics, preferences of the types of help are also different, including direct and indirect helps. Some students need to be helped by an indirect way or a gentle way.

Research Findings

User Research Summary

In our opinion, cultural barriers are ubiquitously existing in campus between native and international students. Participants from China would feel lonely because of the social isolation. One of the participants says: "We are born and grew up in different culture environments, they listened to the bedtime story of The Grimm, Aesop's Fables and Robinson Crusoe, while mine was Journey to the West. They've learned about Shakespeare in their high school while I just finish reading the Hamlet last month. There are not only culture gap between us but also cognitive differences and knowledge differences among us".

By interviewing some native students, they have been sympathetic towards the international students after they have realised the true situation of international students. Native students have already got used to the Australian society and they don't have the long-term experience of a different culture. It is hard to have empathy without an explanation to them. They would not generate the empathy and compassion to international students by themselves unless they got informed what's going on.

Native speakers sometimes are also not willing to talk with others in different languages. Although they don't have language

difficulties of English, some of them also dislike the communication problems. This design project also need to take care of English-speakers. Native speakers also could get help from this design, instead of just helping international students. The final design should bring mutual benefit for both target groups. One of the local interviewees is willing to help international student, although she doesn't think language difficulties and culture barriers will cause social problem, but she knows the social problems will bring pains to a person. The second local interviewee seems like she has her own problem. She has strong sensitive, communication problems will make her anxious, but she has low empathy, she not willing to talk with person whose language is different from her.

International students, especially the ones with language difficulty need a proper approach to interact with native students. The empathy needs to be delivered to native students, in order to inform the native students that someone needs their help.

The research shows that face to face communication is difficult and inefficient for the target. They wish they could get help from native students but they don't have an ideal way to seek help. In our opinion, an online platform can be a solution for them to get some help. The platform can be seen as a bridge that connect local and international students. Users can seek or provide help online, even anonymously. The target international student group also want to improve their English skill.

Learning a language could be time consuming, but in here, if they are in an English environment with native friends, their English skill would be improved faster than ever. How to put them in the proper surroundings and close the distance between the target students and local students will be the goal for this design process.

Considering of our target users values, the final product helps users to get more touch with native speakers and know more about their language and culture, in order to satisfy users' needs of Interacting with outside environment to achieve own sociability, just like in their homeland. Finally, the goal of this design will be Integrating with local culture and overcome language difficulties. We will focus on how to attract native speakers for a long term for using our product, and how to help international students along with protecting their self-esteem, and how to provide mutual benefit to our both target groups.

Requirements & Constraints

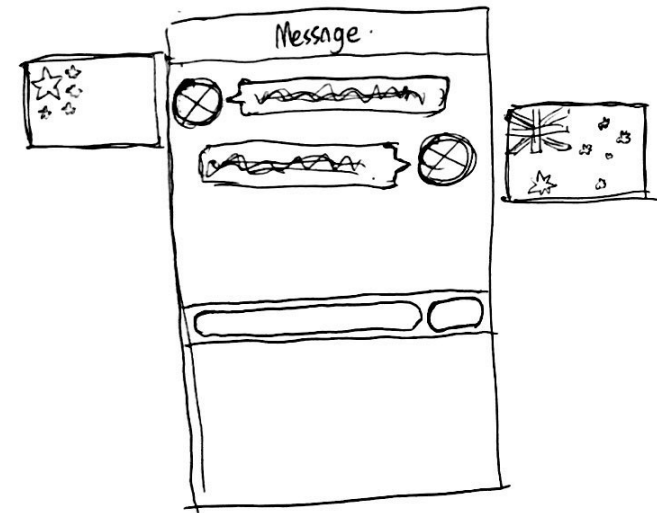
	Technical	Material	Business	Regulatory
Requirement	The final product requires digital devices to run the application, like iOS or Android devices.	It may need third-parties' associations to access some features in the application. Some specialty related information will be needed for some specific features and functions.	The product needs financial support to come into the market and maintain. It requires a large database which costs money to build.	Communication applications need to protect users' privacy and guide users to act safely, in order to prevent indirect dangers. Eg. Alert of meeting anonymous people in real world.
Constraints	This application rely on the internet, and it doesn't recommend users to meet in real world for privacy and safety purpose.	Some ideal functions cannot be achieved because of the material constraint.	Lack of fund may reduce the functionality of the product.	A guidance can only give suggestions. It can't really prevent things to happen.

Initial Concept 1

Chat

We decided to call our product 'closer', which means to close the gap between students.

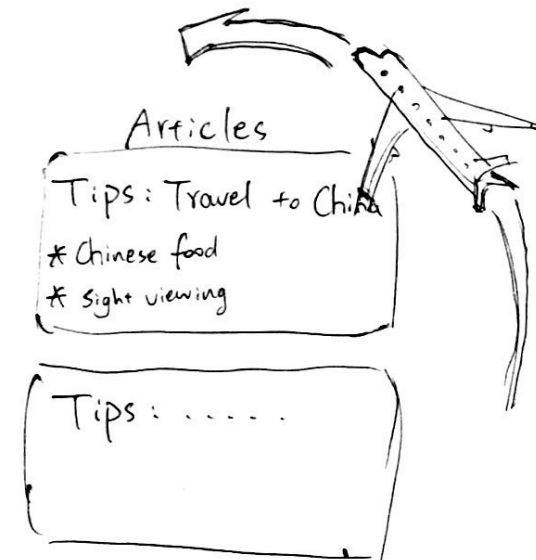
The direct way of solving language difficulties and cultural barriers is through communication. Communication is the nature of sociability of human species, it also is the nature of "Closer". The basic concept of "closer" connect international students who come from non-English speaking countries to native English speakers. Communication between them helps international students use English in practice and also give them an opportunity to know the local culture. In previous research, we found most students are likely to help others, but how to attract English-speaker and make a bond between them in a long term should be considered emphatically.



Initial Concept 2

Subscribe Interesting Article

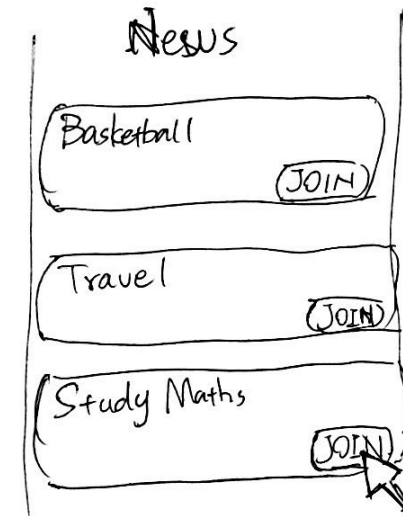
Someone can be outgoing or shy, and everyone is not the same actually. They prefer a direct or indirect way to be helped, what we want to do is provide different ways for different groups of users to satisfy their different needs. Subscription provides students who prefer an indirect way with a comfortable and far enough distance, to make them feel secure in their interaction with the outside world. However, the subscription cannot effectively help this group of students overcome language difficulties.



Initial Concept 3

Common Topics

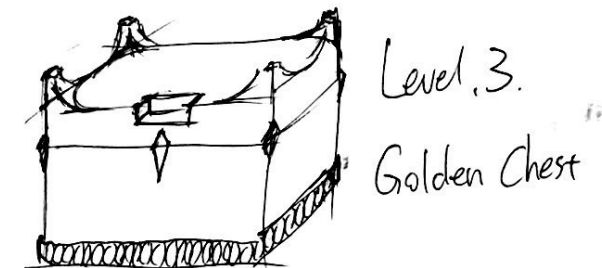
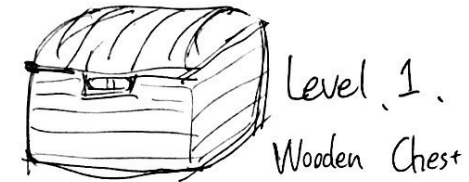
How to keep English-speaker interested in the long term? How to maintain and protect non-English speakers' self-esteem? "Closer" contributes to constructing a two-way and equal relationship between the helping group and being helped group. International students can select the topic they familiar with, like Chinese food, Korean tourism plan, photography or any area they want to share with others. They also can select the topic they interested in, such as Sydney foods, interesting slang and so on, to know more about local culture. "Closer" will match English-speaker and non-English speaker once they select the same topic.



Initial Concept 4

Gamification

In order to strengthen loyalty and liveness of users, we introduce some playing methods into "Closer". 1) Awards System: When users achieve a specific requirement, they will get an award. For example, Lucy logs in "Closer" and talk with other users 15 days, she will get an award named "Closer fan". 2) Users cannot upload a picture or photo as their avatar. "Closer" only provides fixed choices of avatar for users. However, with the more and more awards the users got, the more choices of avatar will be unlocked.



Initial Concept 5

Mentor-ship

We try to find as many solutions as possible to make non-English speaking students feel free to talk with English-speaker. One of our ideas is mentorship. We pair non-English speaker and English speaker base on fields they are interested in. If the non-English speaker and English speaker reach a consensus to pair, they can establish a mentorship in “Closer”. If a shy user just wants an English mentor, “Closer” also can pair for him randomly. We conceive the closer relationship will make user talk to their mentor or student more frequently.

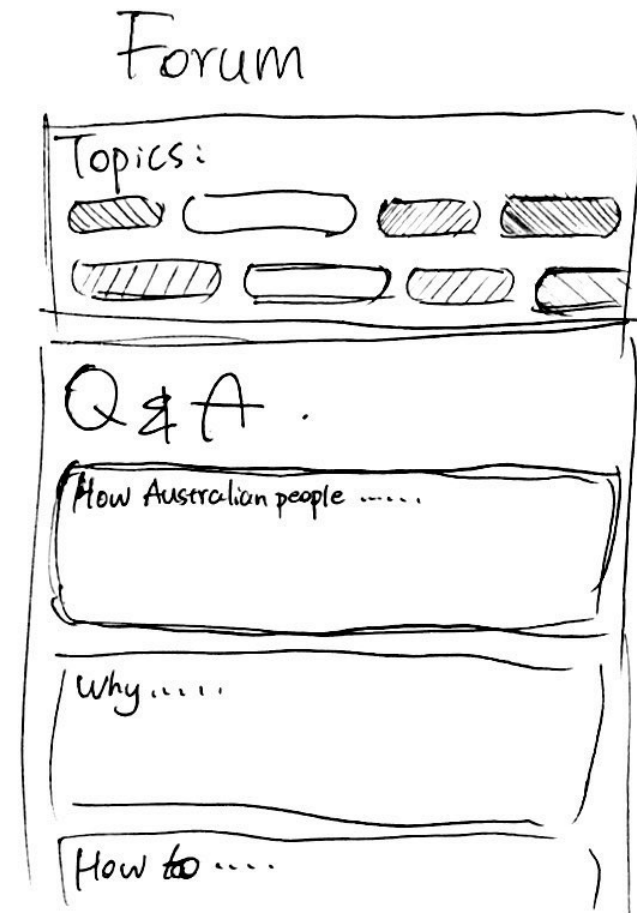


Initial Concept 6

Forum

The forum is a public platform which provides outgoing users to come up with and answer questions. It is also a useful platform for the user who does not want to interact with others to know the fields they are interested in. In the forum, every user can be anonymous to ask some questions which embarrassingly ask in daily life.

Discrimination and other problems should be considered in this part.



Initial Concept 7

Drifting Bottle

Drifting bottle is an indirect communication way for introverts. The message will be sent to a stranger randomly, just like drifting bottle float in the sea, you do not know who will meet it. The difference between the function and real drifting bottle is, the sender is sure to receive the reply if someone replies to them. However, for learning, the way is too time-consuming.

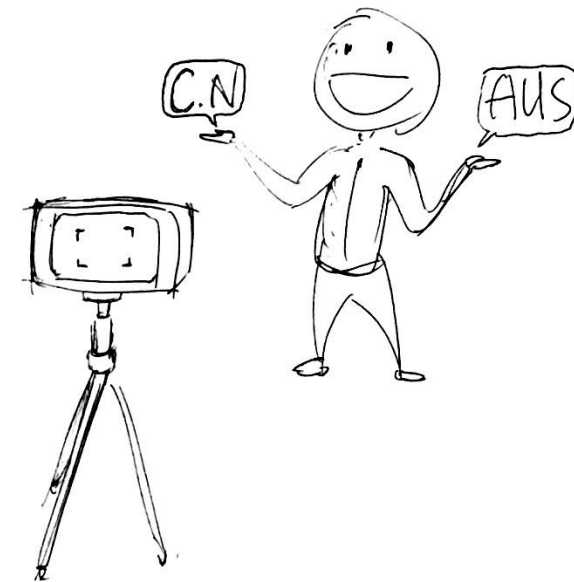


Initial Concept 8

Short Video

Every “closer” user can upload short videos with 3 minutes maximum. The content of it can be diversity, like sharing interesting things in daily life or helping international students to identify every dish on the menu. The video also can be selected as a topic as mentioned before. Users can join it and discuss it.

The function satisfies both users who prefer an indirect way and direct way to help or be helped. For the user who prefer indirect way, they get more vivid and diverse content as well as improve their listening skill. For the user who prefers direct way, they get a great chance to show themselves and help more students.

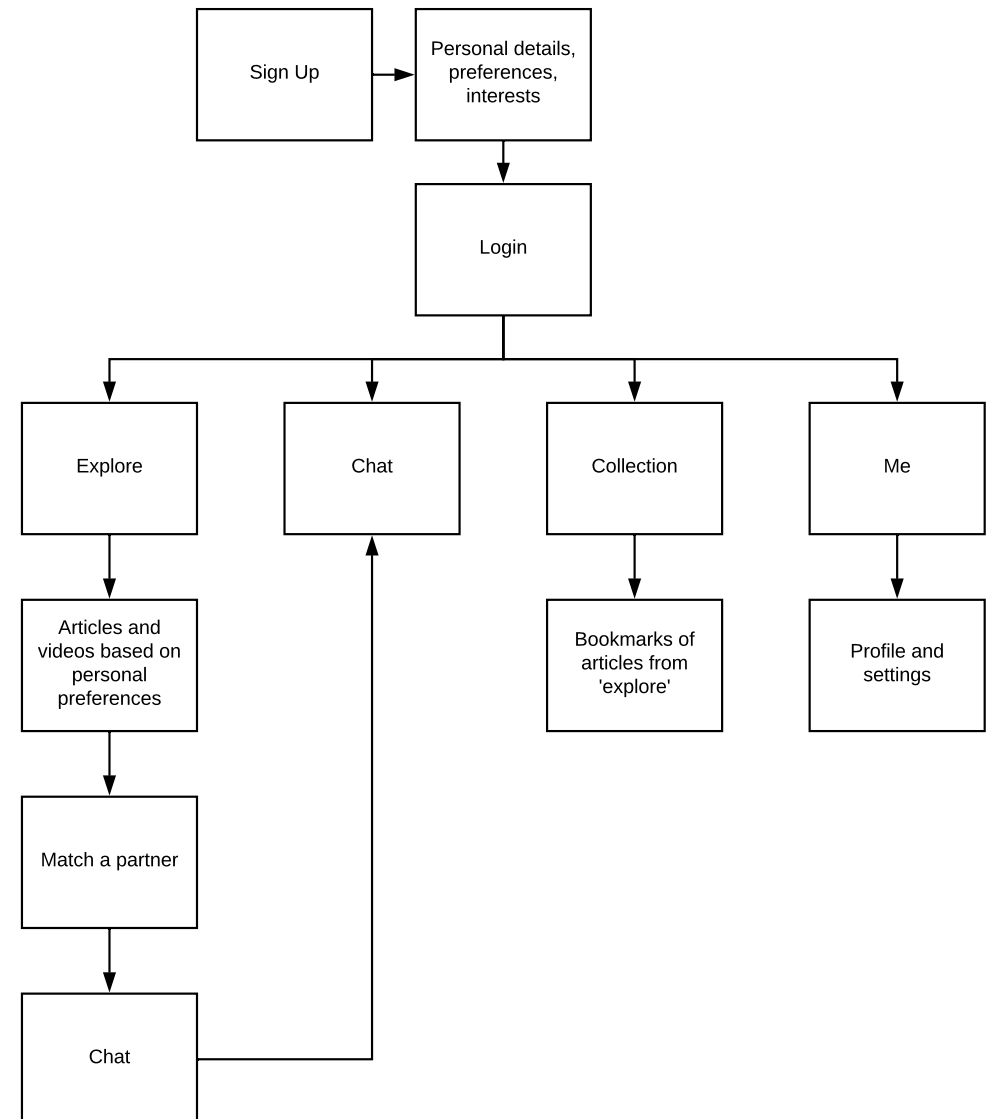


Final Concept

“Closer” focuses on the international student who comes from the non-English-speaking country. Most of them face language difficulties and cultural barriers. They lead to the problems range from negative emotions to psychological illness.

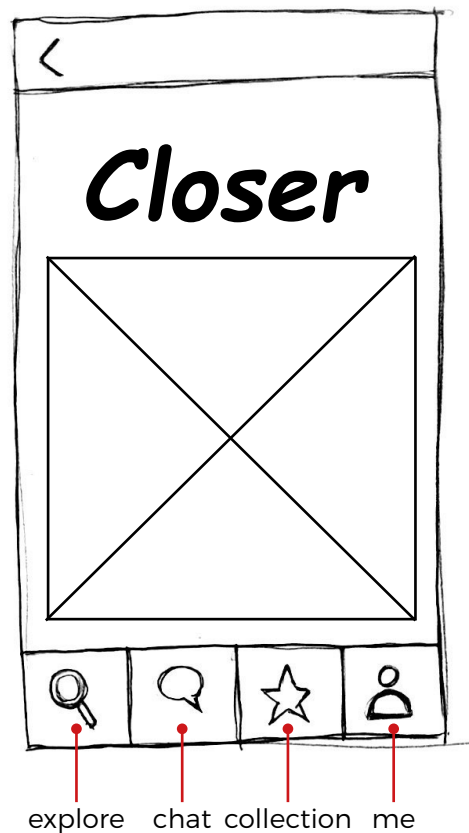
Users who seek to overcome language difficulties and break cultural barriers can be matched to English-speaker and local students on “Closer”. Through this way, they can know more about local culture and feel freer to talk with local students, thus avoiding anxiety, depression and other negative emotions to achieve the need of human sociability.

The final concept combines several concepts mentioned before. We construct the final concept by mainly considering about 1) finding an appropriate and comfortable way for each group of users; 2) establishing a bidirectional relationship to keep English speaker as long as possible.



Final Concept

Final Concept



Main Tabs

Explore: To explore articles based on the users' preference. The articles are created by the system and also other users. The articles are the bridge to connect users. For example, an article has been posted by the system and a specific topic is given, users can match to another random user from a different country to talk about this topic. An international student will match with a native students.

Chat: This tab contains a user's dialogue history. The user can talk to the people who had a conversation with this user before. The user can stop or delete any chat box anytime when feeling uncomfortable.

Collection: This tab contains a user's collection of article and interesting topics from the 'Explore' tab, in order to provide convenience to users to access the topic and match to a new target to chat with.

Me: Personal profile, rewards, settings are in this tab.

Final Concept

The two main ideas of our concept are including:

Common interests

As a way to connect international students and native speakers, chat is integrated with articles of interest. Users can select the fields they are interested in when they register. We will push articles according to the fields they choose. Users can choose articles of interest as topics. The system will match users who are also interested in the topic and connects them to start a chat.

Most international students only speak to native speakers when necessary, such as in class or for life. Most of them have experienced being unable to express or accurately express themselves. Other times, it is not that they do not want to communicate with the locals, but they do not know where to start and what to say.

Helping international students overcome language difficulties and break cultural barriers would be time-consuming. How can we keep native speakers after they download “closer” base on empathy and compassion? Therefore, we hope to establish a bidirectional relationship between native speakers and international students who come from non-English-speaking countries to attract native speakers, to help them get something from “closer”. They can learn a new language, get a detailed travel

guide or discuss their interests with others. These discussions will be more interesting and worth considering with different culture background.

Self-achievement

Video can record up to two minutes to share ideas. The short video feature provides users with a platform to present themselves. With video’s uploading and popularity accumulating, users will find their potential, such as good at teaching, good at discovering the exciting things in life and so on. For instance, users can upload a video that shares the name of a commonly used food condiment. This can be boring for users who speak the same language, but practical for users who speak other languages. It requires the user’s empathy and compassion. As they put in their time, they also gained recognition and praise from other users. The short video feature also provides richer content for more introverted and less interactive users.

Although posting articles and short video based on interests are existing features, no platform allows users to upload articles and short video for education or cultural exchange purposes. There is also no centralized platform system for integrating these articles and videos for users to learn.

Precedence Analysis

Precedence 1

Messenger

Messenger is an affiliated application of Facebook. The main function is to chat with friends. Messenger has become the second most popular Chat App in the market 2018. It is similar to many other chat Apps. In our opinion, the reason why Messenger is so successful is because it links the most popular social network. It is easy to use, and most of Facebook users have installed messenger. The latest version of messenger can show friends' new posts and activities on the top in the home page, but basically its main function is still communication, including one to one chat, group chat and audio/video chat functions. According to our design, we are helping the students who cannot express in English fluently, or don't have the confidence to speak in English. Group chat and audio/video chat is not very suitable for those users. We are trying to create an easy-to-use App as simple as Messenger but not including the functions which could let our users feel unconfident or embarrassed.

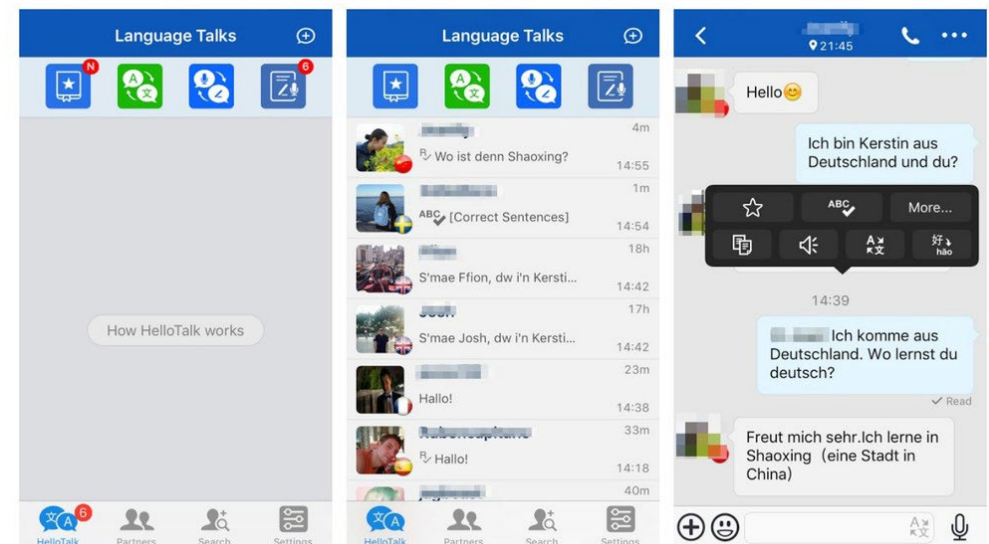


Precedence Analysis

Precedence 2

HelloTalk

HelloTalk is a popular language learning App. The most distinguishing feature of this App is allowing users from different countries with different languages talk to each other, and learn the language from each other. It doesn't like all the other language learning Apps to read articles or learn vocabulary only. All the users are learners and teachers to each other at the same time, so they don't have to feel embarrassed to talk. When the user knows that the target user knows his situation, the user could open his mind to talk without constraints. They can talk anything and ask anything without embarrassment. When the user has found the other user has any grammar errors or cultural misunderstanding, they can just point it out to correct it. Users in this app will be more frank and direct than in real world. In our opinion, frankness won't hurt that much in the virtual word, and talking with an anonymous people could significantly improve users' self-confidence. Even though this App is only a language learning App, we think it could help to deal with cultural barriers in to some extent. People could learn the other's behaviours of talking in order to perceive the way of speaking in the other country.

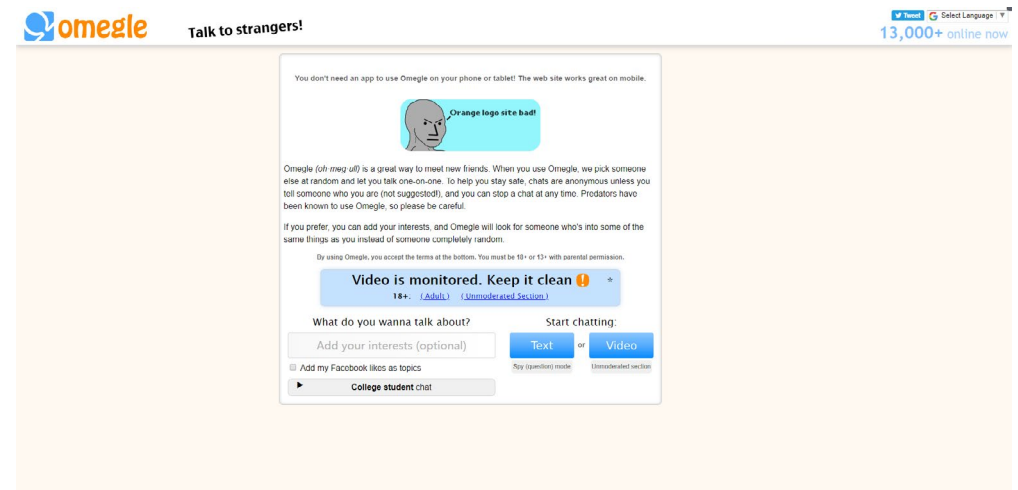


Precedence Analysis

Precedence 3

Omegle

Omegle is a web based chat website allows strangers talk to each other. Once the user hit the start button, the system will assign an anonymous random user to the user then start the chat. Users don't even need to sign up to use Omegle. It is so easy to use comparing to all the other chat applications. This web site has 2 main functions including text chat and video chat. This website used to be polluted by sexual content because of the video talk function. The latest version of this video talk function has been monitored to prevent that. It has also added a great feature which is to enter users' interest before chat (an optional function), and then the user will match to someone who has the same interest and they can talk about their common interests. Although the interface of this website looks shabby but the usability is great. I can't find any other app that as easy as this one to use. The idea of matching with someone with common interests is great. Even one of the uses is not good at English, at least they are in common in another field somehow. Common interests could link people from different countries and different cultures. Through talking about their interests, they also could potentially learn each other's behaviours and culture during the chat.



Personas - International

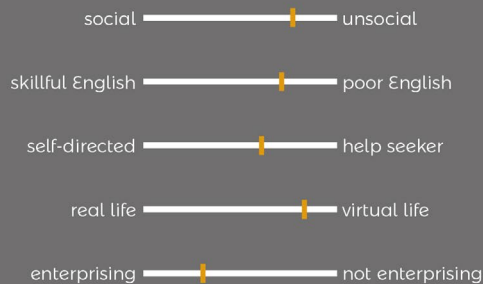
Personas

Lei Li



Age: 24
Gender: Male
Degree: PostGraduate
Nationality: China
Been here for: 8 months

Personality



Motivation: Poor English skill, social isolation, low subjects' marks.

Needs: Social interaction with native students, better English comprehension for his study.

Goals: To have a fruitful oversea experience, living harmoniously with native people.

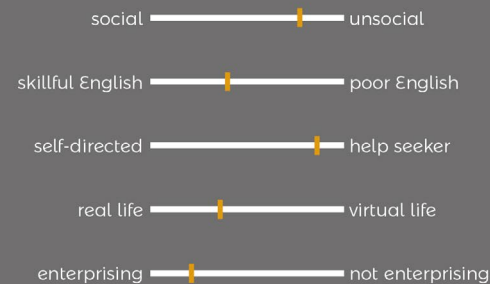
Lei Li has been here for less than 1 year. He had graduated from a Chinese university for undergraduate degree. It is the first time for him to study abroad. His English skill didn't meet the university's entry level so he did a compulsive 10 weeks language course before his master degree. Even with the language course, he still cannot communicate very well in English. He feels the courses in university are very difficult and he can't find a native student who can help him. Now he is living with a bunch of Chinese students and they feel they are isolated from the native society.

Mei Han



Age: 23
Gender: Female
Degree: PostGraduate
Nationality: Korea
Been here for: 3 months

Personality



Motivation: Social isolation, lack of common topic with native students.

Needs: Local friends who can really chat with her and have social activities with.

Goals: Integrate into Australian local society.

Mei Han is a Chinese girl who has just been here. She is from a major city in China so she had a good English education before, so communication with local people is not a problem for her. She is a sociable person but most of her activities are with Chinese people. She feels that she barely have common topics with native students. She has several local friends to talk with in class, but they barely associate during off-campus time. She feels embarrassed when she doesn't have common topic with native students so that she choose to be silent

Personas - Native

Eric Simon



Age: 24

Gender: Male

Degree: PostGraduate

Nationality: Australia

Personality

social ☐ unsocial

skillful English ☐ poor English

self-directed ☐ help seeker

real life ☐ virtual life

enterprising ☐ not enterprising

Motivation: Empathy with international students, curiosity of eastern cultures.

Needs: Helps from Asian students on his Uni's courses, knowledge of different cultures.

Goals: Improvement on study, travel to China successfully.

Eric is a native postgraduate degree student. He is a sociable person who loves parties and sports. He has a good time management to manage his working, studying and leisure time. He loves to make friends from every country, but he doesn't know why Chinese students don't like social activities. He is enthusiastic to help friends just like any other Australians. He thinks that as long as he could understand, English skill will not be a problem.

Story Board

First Iteration

Use scenario

Lei Li is feeling social isolation from the native society. He wants to get integrated into the society. He saw our product 'Closer' advertisement and want to give it a go. He has registered his account in Closer and he selected 'Basketball' as one of his interests. One day, he want to play basketball but he is alone. So, he used Closer to find a local students and go to play basketball together. During this activity, Lei has met a new friend who has common interest as him, and also had English conversation with the native user.



Story Board

First Iteration

Use scenario

Eric wants to plan his trip to Beijing. He wishes to get some information from native Beijing person. There are many international students from Beijing who are studying in Australia. He has logged in to 'Closer' to publish a help-seeking post to find someone who can help him. The system will send the notification to the users who match the conditions according to the registration information Mei Han is a girl from Beijing and now studying in USYD. She has got the notification and decided to have a chat with Eric. After the chat, Mei has earned a virtual token by helping others. From this activities, both users have earned what they need. Eric has gained the information about traveling to Beijing, and Mei has had an English conversation with a native speaker.



Story Board

First Iteration

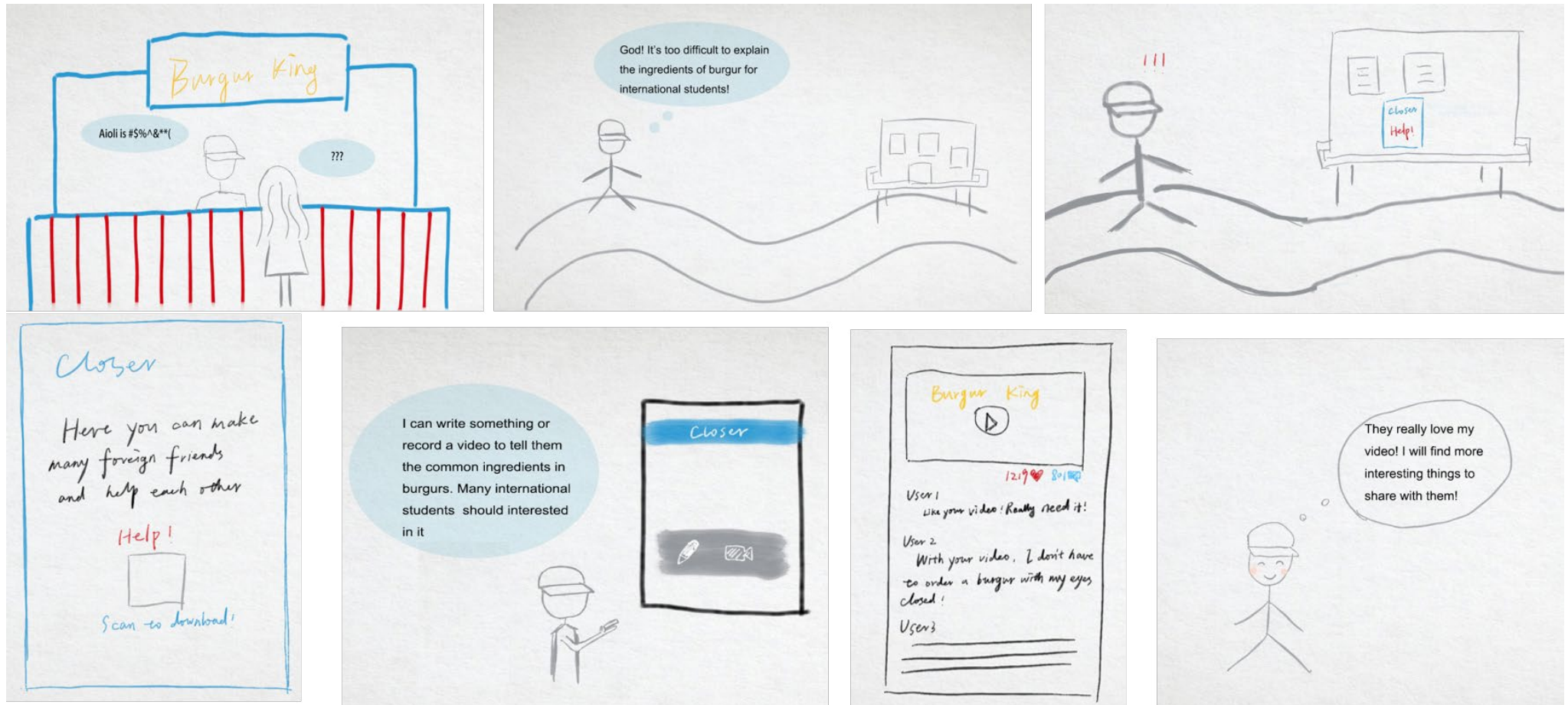
Use scenario

It was Friday 7 pm. Eric Simon just finished his part-time job at burger king today.

He meets lots of customers from non-english-speaking countries. These customers don't really know the words on the menu, so they often can't order the burger they want.

Eric really wanted to help them, but it was hard to explain a ingredient they had never seen.

Eric saw the "closer" AD and found it to be a good platform for students to help each other. Therefore he registered on the platform and shared some video on ingredients, hoping to help others.



Sketches

First Iteration

Sign Up

A hand-drawn sketch of a login page on graph paper. At the top, the word "Closer" is written in a cursive font. Below it are two horizontal lines for "Username" and "Password". To the right of the password field is a small "Forgot?" link. Below these fields is a rectangular "Login" button. At the bottom, there is a link that says "Create a new account".

Login page

A hand-drawn sketch of a personal details form on graph paper. It contains four horizontal lines for text input, labeled "Nationality", "Native Language", "University", and "Major". At the bottom, there is a navigation bar with a left arrow, the text "2/3", and a right arrow.

Personal details

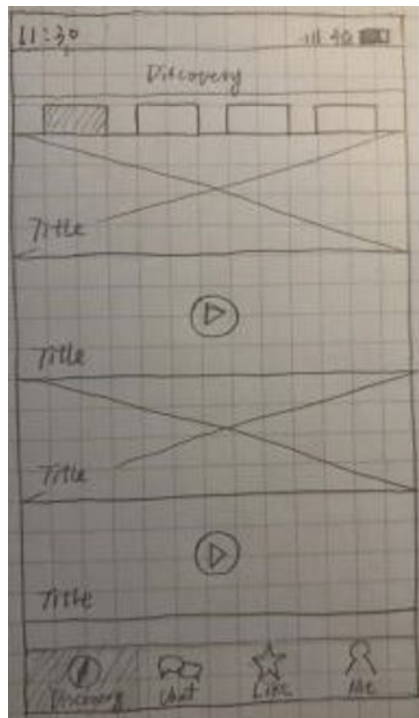
A hand-drawn sketch of a personal interests form on graph paper. The title is "Your Interests (multiple choice)". Below it are eight rows of three rectangular input boxes each. At the bottom, there is a "Submit" button and a "D-thar" label. A navigation bar at the very bottom includes a left arrow, the text "3/3", and the "Submit" button.

Personal interests

Sketches

First Iteration

Join a topic

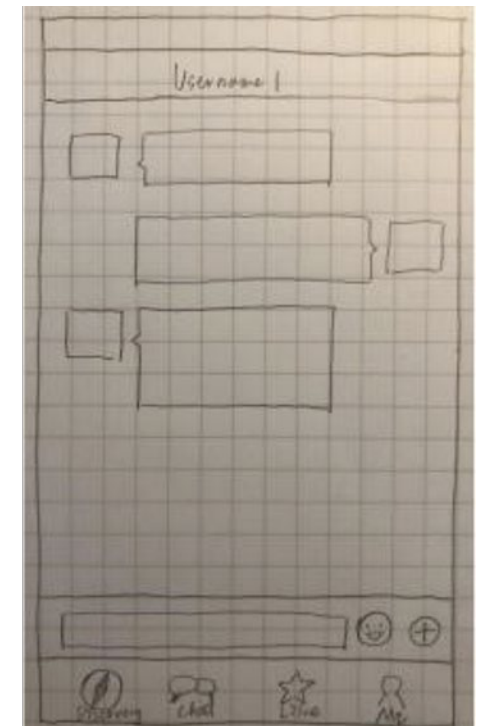


The first tab 'Discovery' (now changed to 'Explore'), to explore preferred topics and match to a random user to chat.

Chat



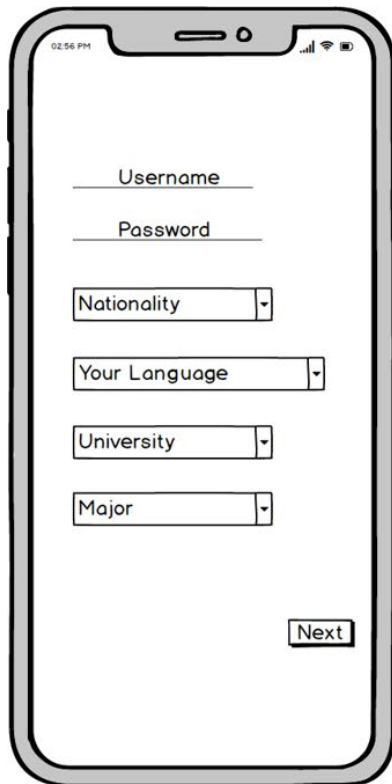
The second tab 'Chat' page stores users' chat history. Each dialog box can be reopened to talk and deleted.



Mockups

First Iteration

Sign Up



02:56 PM

Username

Password

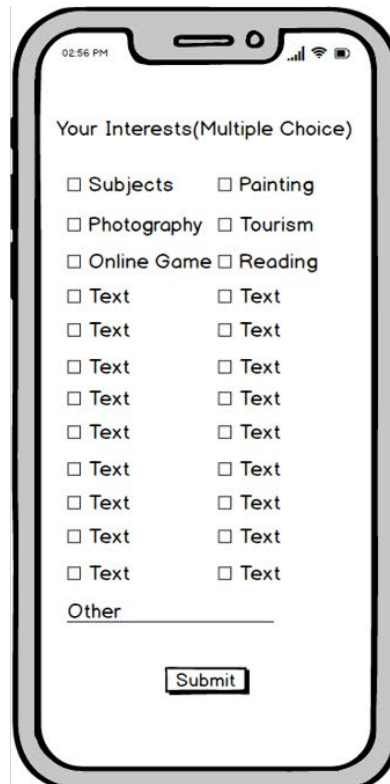
Nationality

Your Language

University

Major

Next



02:56 PM

Your Interests(Multiple Choice)

☐ Subjects ☐ Painting

☐ Photography ☐ Tourism

☐ Online Game ☐ Reading

☐ Text ☐ Text

☐ Text ☐ Text

☐ Text ☐ Text

☐ Text ☐ Text

☐ Text ☐ Text

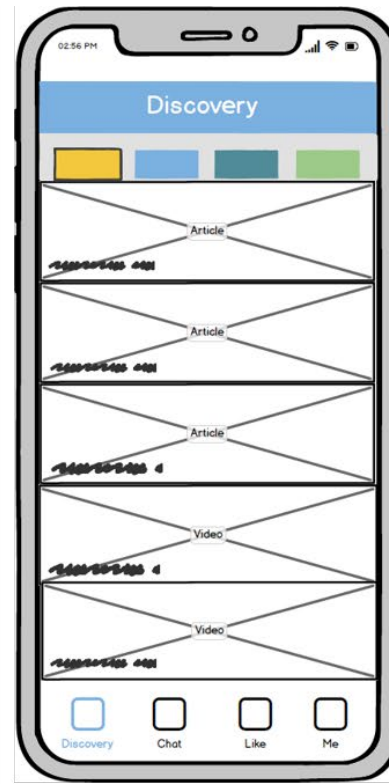
☐ Text ☐ Text

☐ Text ☐ Text

Other

Submit

Join a topic



02:56 PM

Discovery

Article

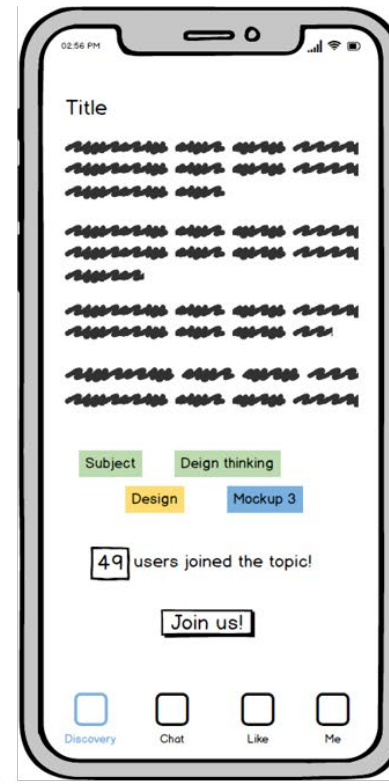
Article

Article

Video

Video

Discovery Chat Like Me



02:56 PM

Title

Subject Design thinking

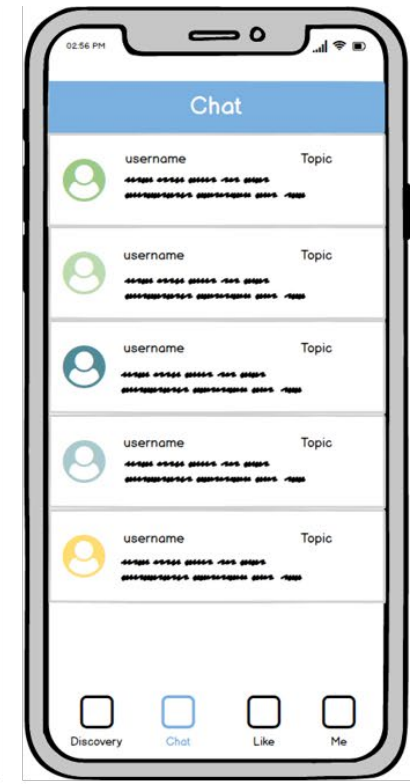
Design Mockup 3

49 users joined the topic!

Join us!

Discovery Chat Like Me

Chat



02:56 PM

Chat

username Topic

username Topic

username Topic

username Topic

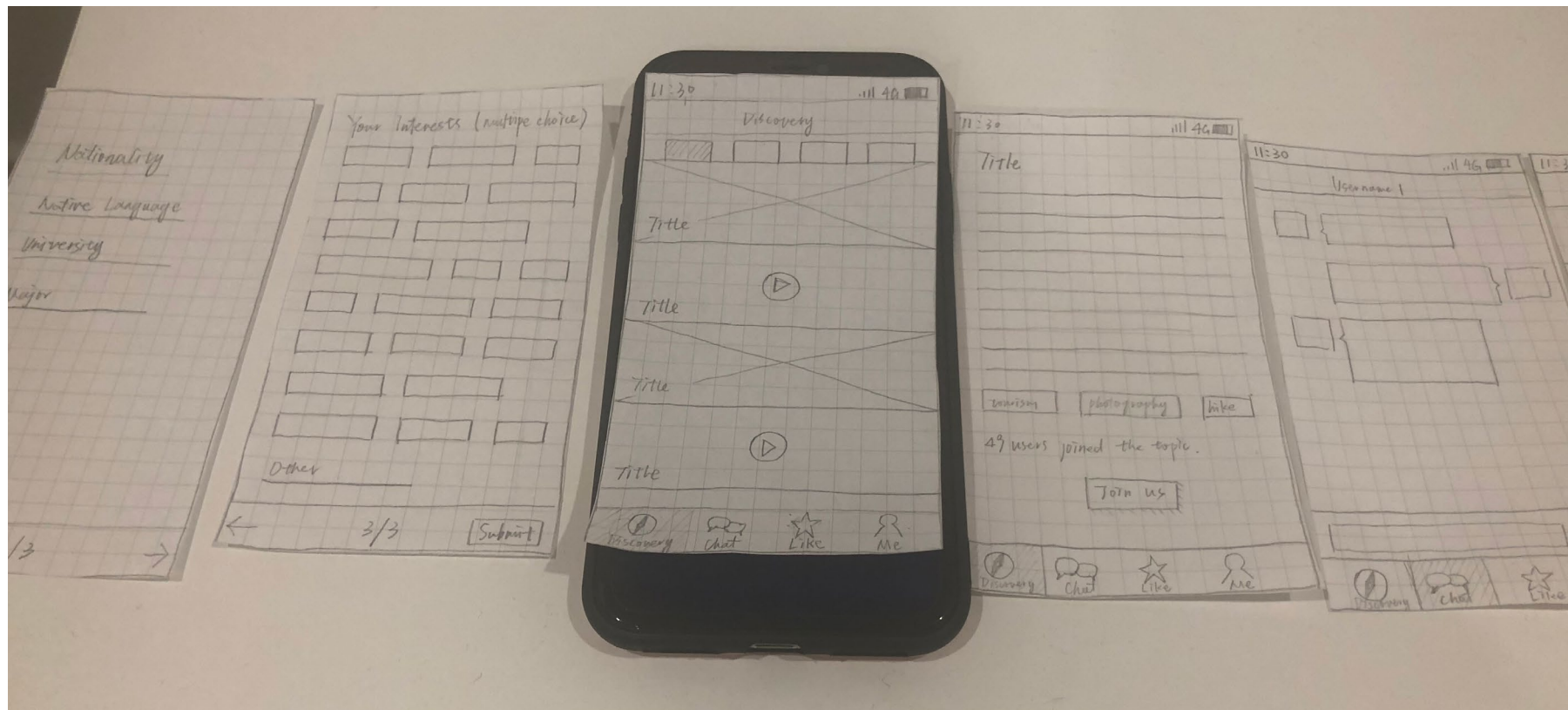
username Topic

Discovery Chat Like Me

Mockups

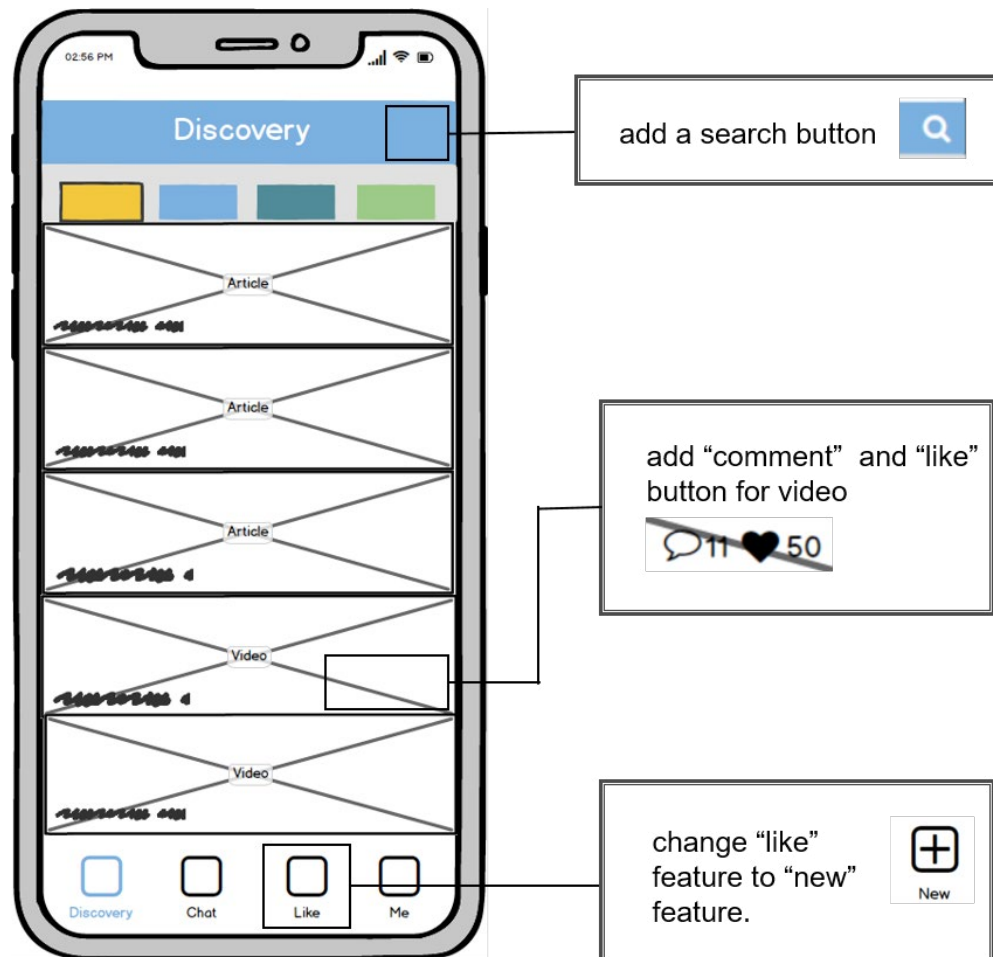
First Iteration

Paper Prototype



Iteration

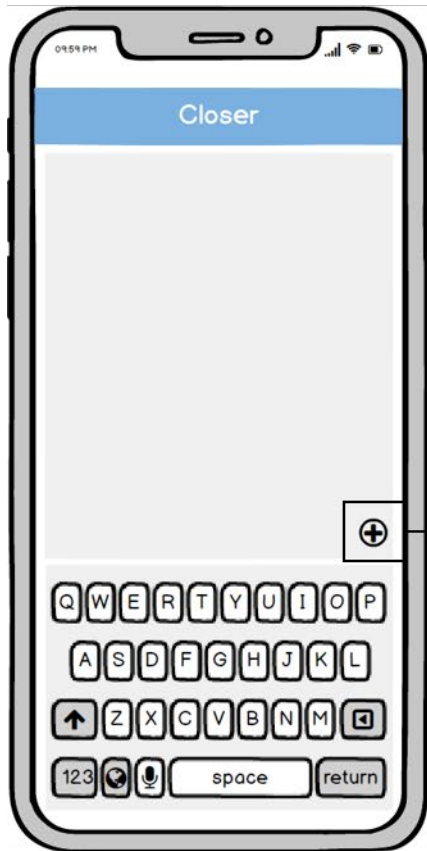
First Iteration



Improvement	Explanation
1. add "search" button in Discovery	Users can search for keywords in the search function to quickly find the target topic.
2. add "comment" and "like" button for video	We have been discussing on open comment feature or not, because comments can make it less likely that users participate in the topic and communicate directly with users. Considering that the form of short video is more direct and diversified, and the uploader also needs the motivation of like and comments, we decided to open like and comment function for short video and like function for articles.
3. change "like" feature to "new" feature	The "Like" function no longer displays as the primary function key. It will be integrated into the "Me" function key. The location of the "Like" function key will be replaced by the "new" function key for users to upload their own articles and videos. Previous version ignored the need for users to upload new topics and videos.

Iteration

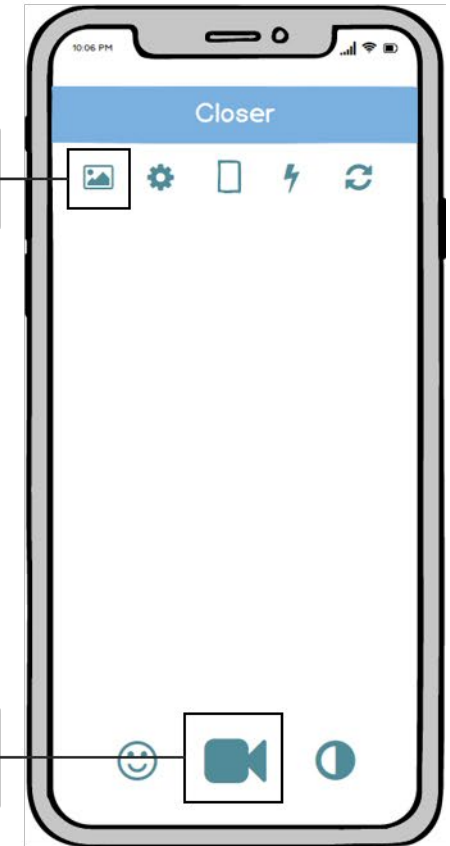
First Iteration



click the
button to add
picture in text



click the button
to upload video

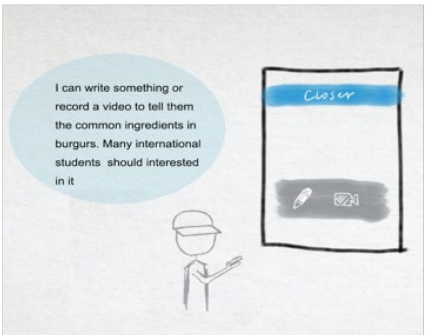


record
new video

Persona Walkthrough

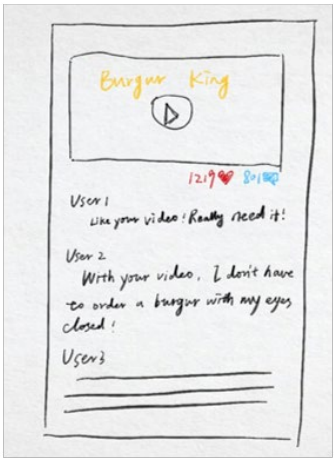
Eric Simon

Second Iteration



Empathy and compassion are indispensable factors in the development of human society. Eric's original goal was to use "closer" to share some common knowledge to help international students who come from non-English speaking countries.

High quality and practical original content enabled Eric to receive many comments and likes. The love of other users makes Eric willing to share more useful video.



Evaluation

Needs	Wants	Exsiting Function	Problem
compassion/ empathy/self -achievement	helping international students	upload video/article, chat	"Closer" doesn't have a mechanism which make every video can be discovered by the user
sociability	making friends with different culture background	chat	
self- achievement	attract more fans	upload video/article	"Closer" has no subscription, sharing, or homepage features to help Eric maintain his fan base.
learning more	learn a new language/travel guide	chat/article	

Persona Walkthrough

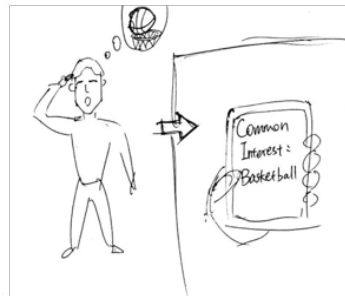
Lei Li

Second Iteration

Li lei and many students are isolated from the local community because of language problems.



"Closer" provides an opportunity for Li lei to have a serious conversation with the native speaker. "Closer" helped him find common interest with the locals and opened the conversation.



There may be some difficulties in the chat process, but more practice can help Li lei overcome the language difficulties faster.



Evaluation

Needs	Wants	Exsiting Function	Problem
integrated into local community	making friends with different culture background	chat	His English is poor. Communication with locals is problematic.
Find out what was said in class	overcome language difficulties	chat/article/video	His English is poor. Communication with locals is problematic.

Persona Walkthrough

Mei Han

Second Iteration

Users do not need to pay blindly, an equal relationship can attract users for a long time. Native speakers may be interested in a different culture, a new language and so on.

In the storyboard, the native speaker wants to travel to Beijing. He wants to get a detailed tour guide from Beijing people.

Han Mei comes from Beijing, she knows everything about there. Therefore she can help the native. While helping, she also establish a friendship with the locals.



Evaluation

Needs	Wants	Exsiting Function	Problem
sociability	making some friends who speaking English	chat	It takes too much time to find a topic
sociability	integrating into local community/break cultural barriers	chat/article/video	
sociability	found a bidirectional relationship	chat	

Storyboard by Ang Zhao

Walkthrough by Zhuyu Wu

Second Iteration

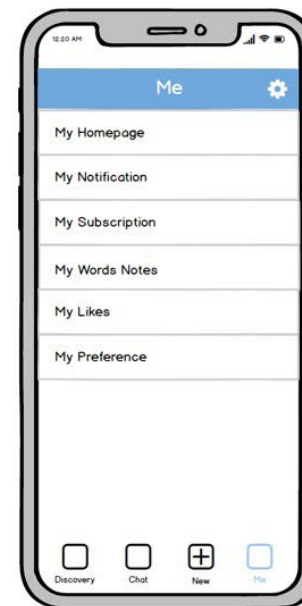
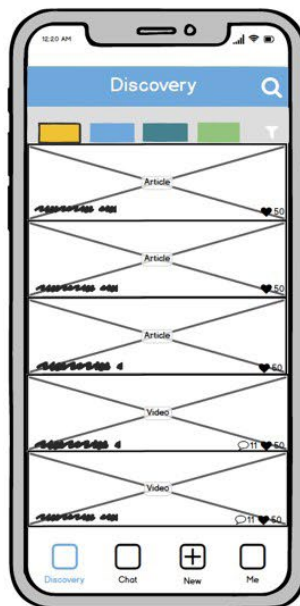
Second Iteration

Persona	Improvement	Explanation
Eric/Lei/Mei	1. add "Filter" button	1. Enable users to find the content they need more quickly 2. To make every article or video as visible as possible, the content can be sorted by publish time 3. To keep users excited about releasing original content
Eric	2. add "subscribe" button	1. To keep users excited about releasing original content, the subscription function enables users who publish quality content to accumulate followers. 2. Enables users to receive quality content easily over a long period of time
Eric	3. Personal Homepage	The user homepage shows the content posted by the user in chronological and popularity order. Users can set the browsing authority of the user homepage. This feature helps users who publish quality content to build followers.
Lei	4. Built-in word translator (English to English)	New words may appear while reading or communicating. A built-in translator makes reading and communicating much faster. To make the user not overly dependent on the translator, English translations for single words are provided.
Lei	5. My Words Note (English to Chinese)	"Closer" will collect the words that users have translated during the use into users' words note, so that users can learn.

Second Iteration

Second Iteration

Persona	Improvement	Explanation
Eric/Mei/Lei	6. New topic reminder	We've optimized the process for users to get content, thus encourage users to communicate with others more frequently. If a new topic is posted within the user's area of interest, the system will alerts the user. For example, user B posts a new topic and wants a shanghainese to recommend Shanghai food and tourist attractions to him. If user A writes that he is from Shanghai at the time of registration, the system will notify and ask if user A starts a conversation with user B.
Eric/Mei	7. add "share" button to short video	Allows users to share content on social media. This feature can help users who post quality content to build more followers, and attract more users for "closer".



Final Iteration

Further Iteration

User Test

Participant	Method	Place	Principal	Tasks	Improvement
Siyuan Chen	Think aloud/Low fidelity prototype	Wilkinson Building	Zhuyu Wu	1. Sign up successfully 2. Find a tag you interested in, select your favorite article 3. Join the topic 4. Find user 5, and chat with him	1. Users can swipe left for items they don't like, and "closer" will not push related items later. 2. add "search" button on chat list. 3. "Join us" button in article screen can confuse users into joining group chats.
Iris Luo	Think aloud/High fidelity prototype expereince/usability test	Home	Zhuyu Wu	1. Sign up successfully 2. Find a video, and follow its' publisher 3. Find a newly published article 4. Match a user in the topic, say "hi" to her 5. Accept the invitation to chat about Shanghai cuisine	1. add "return" button on every screen 2. add phonetic function in chat 3. Optimization sequencing function 4. Optimize the notification
Loki L	Think aloud/observation	Wilkinson Building	Ang Zhao	1. Find an article that you are interested in and join a conversation. 2. Find a person who is in your chat list and talk to him again. 3. Post an article. It can be text or textual or a video. 4. If you see a new notification in this App, check it out and respond it.	1. add "text editing" after recording 2. Clarify "closer" will match native speakers or international students 3. add a symbol to indicate a new notification 4. Article editing optimization

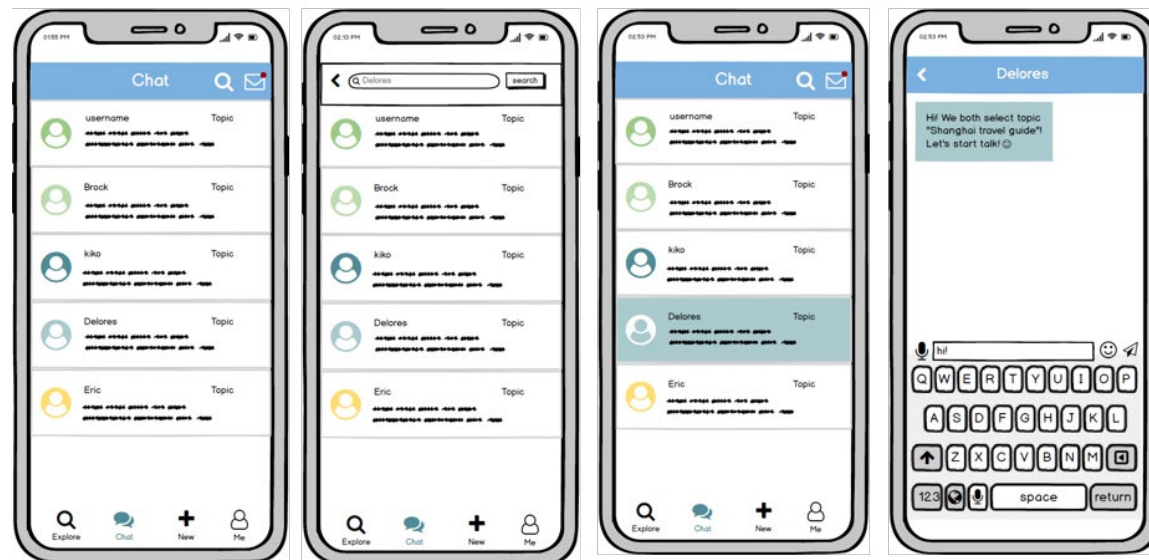
Final Design

Further Iteration

tab **Explore**



tab **Chat**



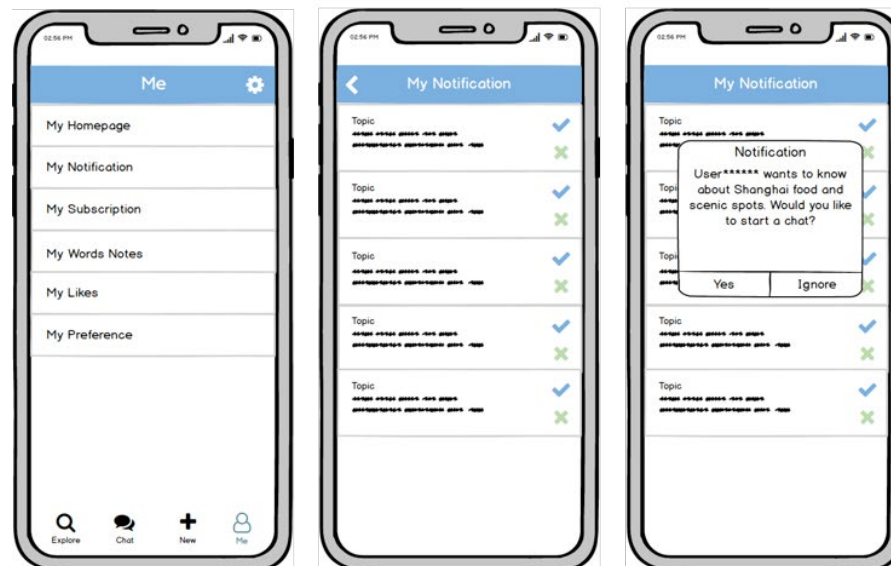
Final Design

Further Iteration

tab **New**



tab **Me**



Findings & Changes

We have tested three participants in total. Each time a user is tested, an improvement is made for the final UI interface.

The first user to be tested used a paper prototype with low fidelity. The low-fidelity prototype makes her care less about the UI interface and more about the concept, function, and experience of the product itself, such as what to do when encountering a topic she does not like, and what to do when a user does not have common interests and topics with her. The next two users were tested by high fidelity wireframe. Wireframe makes the test subjects have higher requirements on the internal association and logic of the App. They found a lot of problems in the UI interface. These problems give us many thoughts about the process and interface optimization.

From their perspective, users can find many problems that we did not aware of. Many of the initial designs of the details in our UI can be confusing or misleading. From the current design, users can recognize it as a chat App, but only for that. We need a more detailed design to help the user understand what “closer” is, and what closer can help them to do. A lively instruction manual is necessary for both international and local students. The manual can help them understand the “closer” function as soon as possible, and what they can get and learn.

Final Discussion & Reflection

Summary

The issue of cultural barriers is ubiquitous, it has significantly impeded the pace of globalization and cultural fusion. The trend of studying overseas is more popular than ever. The connection between international students to native students has become much more tight and frequent. Around $\frac{1}{4}$ students in Sydney's major universities are international students. It might look like international students have integrated into the native society by looking at the population, but, because of the difference of cultures, languages and experiences, international students are still outside of the local society. That is the reason why we create our application 'Closer'. We want to break the barriers, close the gap, and let people connect to each other sincerely.

Why 'Closer'

There are a number of chat Apps and language learning Apps on the market. But none of them is focusing on dealing with cultural barriers. In our opinion, users need to be guided to talk about cultures and languages, in order to deliver empathy and compassion to each other. Because of the poor English level, many international students would feel embarrassed when they talk to a native person. They need a special environment to release their internal voices. Our product can provide the special environment to users, to make them feel comfortable to talk, to ask, to share. Every user in this App is a learner. No matter you are native or international, you always know something they don't know. The user can share their knowledge of own cultures or professional skills in exchange for learning English from the target. And also, a native student can use this platform to learn other language from international students. The mutual benefit applies to all the users.

What's next

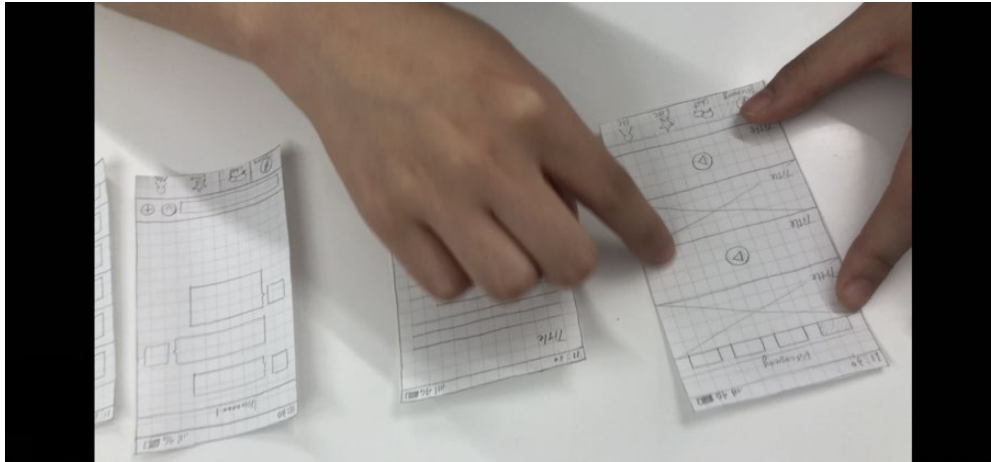
For the next step, a fully functional prototype need to be done in order to implement more comprehensive and detailed user tests. The user tests in this design process had done by initial mockups and Balsamiq software. It can only show the general ideation and brief flow of our design. There are so many detailed functions and buttons in this App cannot be get tested. Because of the limitations of our hardware facilities and our current design skills, so many great usability tests cannot be fulfilled. We need to develop our perspectives, enrich our design skills and master all the design research methodologies to refine our final design.

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Appendix

User test: Siyuan Chen



Task	Interface Part	Verbal Protocol
1. Sign up successfully	"sign up" screen/ perference selection	
2. Find a tag you interested in, select your favorite article	"Explore" screen	If I do not like the article, what should I do to let you know I don't like it?
3. Join the topic	"article" screen/ "join us" button	"join us" make feel I will join a group chat instead of individual.
4. Find user 5, and chat with him	"chat list" screen/ "chat" screen	where is user5?

User test: Iris Luo

Think-Aloud Protocol

User Goal / Task	Interface Part / Location	Verbal Protocol
Sign up successfully	"Sign up" screen; preference selection	
Find a video, and follow its publisher	"Explore" screen; "Video" screen	Is that video? Easy to find, follow Eric right?
Find a newest published article	"Filter" button; Time sequence	Can I slide to find it? I close Time sequence, but I still do not know which one is first
Watch a user in the topic, say "hi" to her	"Article" screen; "Watch" button	
Accept the invitation to chat about Shanghai cuisine through notification	"Me" function; "Any Notification"	Where is notification? Too hard to find it.

190 Templates

Usability Testing

Data sheet

Notetaker Zhuyi Wu
 Participant # Iris Luo
 Tested product (e.g. website URL) "Class"

Task(s) (Enter a brief description for each task)	Success 0 = Not completed 1 = Completed with difficulty or help 2 = Easily completed	Time to complete	Number of Errors	Notes/Observations (Note why the user was successful or not successful, e.g. wrong pathways, confusing page layout, navigation issues, terminology)
#1: Sign up	2	5s	0	
#2: Find a video, and follow its publisher	2	10s	0	
#3: Find a newest article	1	30s	2	Easily find filter, but confused about "top-down" or "bottom-up"
#4: Watch a user in topic, chat with her	2	25s	2	
#5: Accept the invitation to chat about Shanghai cuisine	1	50s	4	Difficult to find notification

Design. Think. Make. Break. Repeat. 191

Usability Testing

Data sheet

System Usability Scale

Participant # _____

		strongly disagree	1	2	3	4	5	strongly agree
1	I think that I would like to use this system frequently.					✓		
2	I found the system unnecessarily complex.	✓						
3	I thought the system was easy to use.						✓	
4	I think that I would need the support of a technical person to be able to use this system.	✓						
5	I found the various functions in this system were well integrated.							✓
6	I thought there was too much inconsistency in this system.					✓		
7	I would imagine that most people would learn to use this system very quickly.					✓		
8	I found the system very cumbersome to use.	✓						
9	I felt very confident using the system.							✓
10	I needed to learn a lot of things before I could get going with this system.		✓					

Source: Brooke, J. (1996). SUS-A quick and dirty usability scale. Usability evaluation in industry, 189(194), 4-7.

Consent Form

I agree to participate in the study conducted and recorded by Zhuyi Wu

I agree to:

☐ The session being audio/video-recorded (cross out as appropriate)

☐ The use of photographs and video recordings for the purpose of documenting the findings from this study

I understand that the information collected in this study is for research purposes only and that my name and image will not be used for any other purpose. I relinquish any rights to the recording.

I understand that participation in this usability study is voluntary and I agree to immediately raise any concerns or areas of discomfort during the session with the study administrator.

I confirm that I have read and understand the information on this form and that any questions I might have about the session have been answered.

Date: 10.28

Please print your name: _____

Please sign your name: Xiaoli Luo

Thank you! We appreciate your participation.

192 Templates

User test: Loki Lee

Task

1. Find an article that you are interested in and join a conversation.
2. Find a person who is in your chat list and talk to him again.
3. Post an article. It can be text or textual or a video.
4. If you see a new notification in this App, check it out and respond it.

User ID	Loki L
Task ID	1 2 3 4
Overall successful?	Yes Only-with-help No
Clock Time	00 : 13 - The user has finished registration 00 : 25 - The user has checked out the articles and selected one of them 00 : 31 – The user has pressed 'Join Us' button and jumped into a conversation page.
Errors	This task went well totally. The users was confused about the button 'Join Us'. He thought he would join a group chat instead of a 1 on 1 chat.
Other notes	The user doesn't know if he will match to a native user or an international user.

User ID	Loki L
Task ID	1 2 3 4
Overall successful?	Yes Only-with-help No
Clock Time	00 : 05 - The user has pressed the 'Chat' tab at the bottom on the screen 00 : 09 - The user is looking at the chat history. He wants to know who the people are and what does the 'topic' mean. 00 : 15 - The user has clicked one of the chat box and entered the conversation page.
Errors	The user has completed the talk well totally, but without my explanation, he doesn't know who are the people in the chat history list.
Other notes	Without using from the beginning, something need to be explained. The user says this app looks easy to use and it does.

User ID	Loki L
Task ID	1 2 3 4
Overall successful?	Yes Only-with-help No
Clock Time	00 : 13 - The user has searching for the function for posting articles 00 : 25 - With my hint the user has opened the 'New' tab. 00 : 30 - The user has selected to post a video article. 00 : 52 - The user has been stuck in the page for a while. 01 : 04 – With my help he has finished the task to take a video and post it.
Errors	Lack of 'Send' button after the video has been finished recording. Lack of text editing function. Posting a video article should include both text and the video. The tab button and name doesn't describe the function well.
Other notes	This demo app can't show everything we want to show to users. Tab label need to be changed. In the recording video page, more functions need to be added, such as text input, video editing, etc.

User ID	Loki L
Task ID	1 2 3 4
Overall successful?	Yes Only-with-help No
Clock Time	00 : 19 – User: 'How do I know there is a notification?' 00 : 25 - With my help he went to the 'Me' Tab. 00 : 39 - The user saw the notification button and pressed it. 00 : 48 – One notification has popped out. 01 : 00 – The user has accepted the chat request and jumped to a conversation page.
Errors	Too hard to check notifications. The notification center doesn't belong to the 'Me' tab. It should be somewhere else. There should be a little symbol to indicate new notifications.
Other notes	Notifications must be easy to reach. It is hidden so deep in this App. The user says the notification should jump at the first time when once it received.