



Ling - Process Book

Problem

Chinese international college student have difficulty to confirm whether they are experiencing racial discrimination when it is actually happening on them.

Solution

A mobile-based educational-purposed chatbot provides real-time inquiry functionality and learning resource

My design process

Literature research - user interview - secondary interview - ideation - concept test - wireframing - user test (heuristics research) - iteration

Deliverable

Research process, Wireframe





Li Lu

This is Lili, a 24 year old Chinese girl, who just accepted to Fine art program at college in Ohio, to pursue her master degree in her next 2 years

She grew up y in small city in Southeastern China, and and just earned her bachelor degree at University in her hometown.

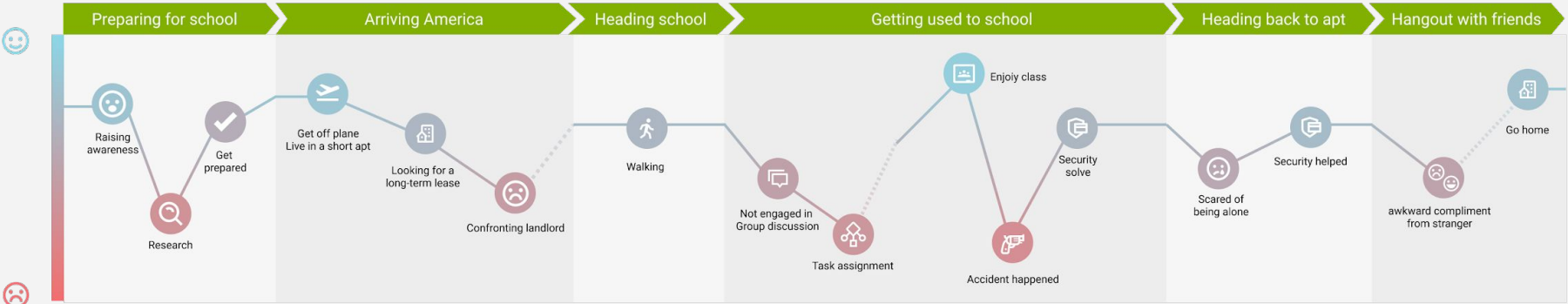
She was excited about incoming life in America, looking forward experiencing different culture, advanced education, and making friend with people from different country

Lilu's JOURNEY MAP

Before

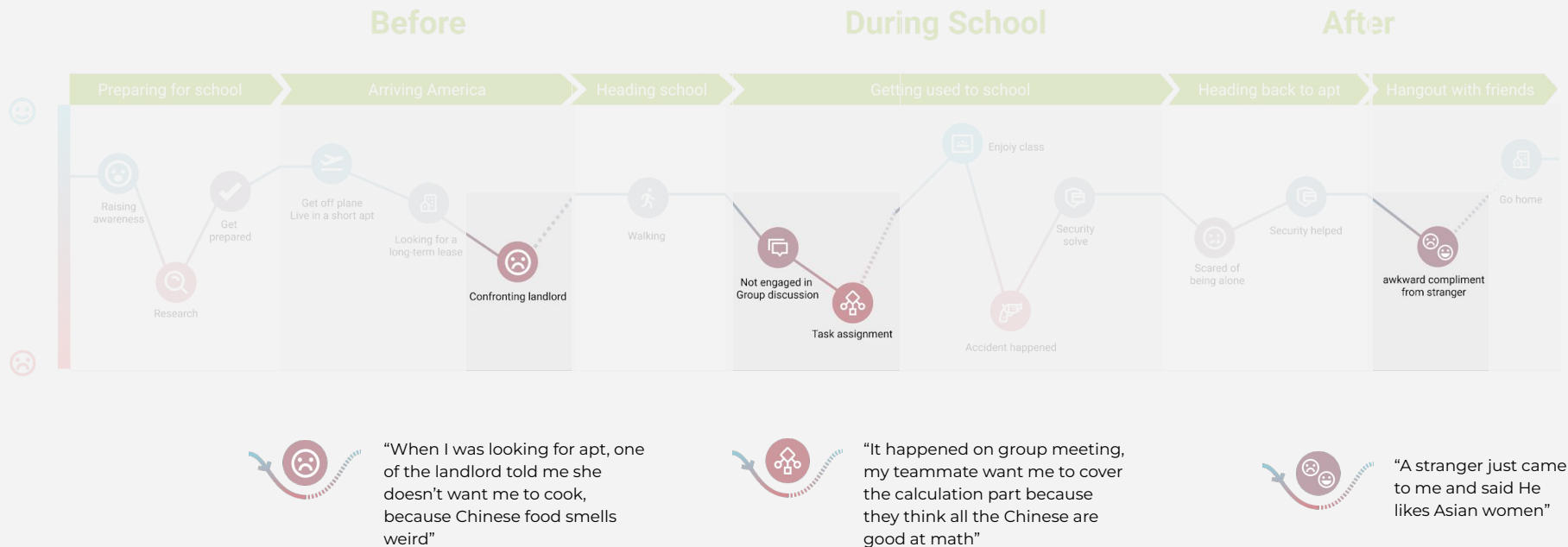
During School

After



JOURNEY MAP

Look at Lilu's journey, There are so many emotional downtrend there, and take closer look at the whole journey. Some of the upsetting moment bounce back, because it got fixed Except these part, these verbal or physical or even sexual violence are racism-related Plus, the emotional downtrend never go back, because lilu wasn't even sure if they are racism, no to mention found a way to take action and make herself feel better. This is something she never experienced in China and wasn't able to learn from



RESEARCH - INTERVIEW

Lilu isn't alone, it happened the 11 Chinese student I interviewed, at least 6 students claimed they experienced racial discrimination, and 80% of them used to not speak out loud

11

Students
from CN

63%

Faced racism-like
situation

80%

Decided not to
speak out



NOT BEING AWARE IS COMMON PROBLEM

You might be curious why didn't student just fight back. There are a lot of legal and mental support on campus. If you are not even aware of it, how could ask for help? One of the member in The Chinese Student Association said. They provide support for Chinese student who ever experience racism, but how helpful would that be if the victim even not sure what happen and never come to seek for help?



“

I didn't realize that racism is a problem until I got here (USA)

- Ethan, Designer



“

...the way they talked makes uncomfortable, but I wasn't sure if it was a joke

- Yiran, Senior Student



“

I told myself that maybe I think too much

- Zirui, Mechanical Engineer



“

Most of students usually not come to us, even if we do provide related help

- Member in The Chinese Students' Association

PENN CSA

Takeaway

Gaining knowledge about existence of racism and getting the ability to identify racism is important, because it's the first step to fight back, and to ensure the whole community safety.

Problem statement

How might we design a solution that allows Chinese international student to learn about existence of racism and getting the ability to identify racism

MENTAL JOURNEY MAP - WHEN EXPERIENCING RACISM



MENTAL JOURNEY MAP - WHEN EXPERIENCING RACISM

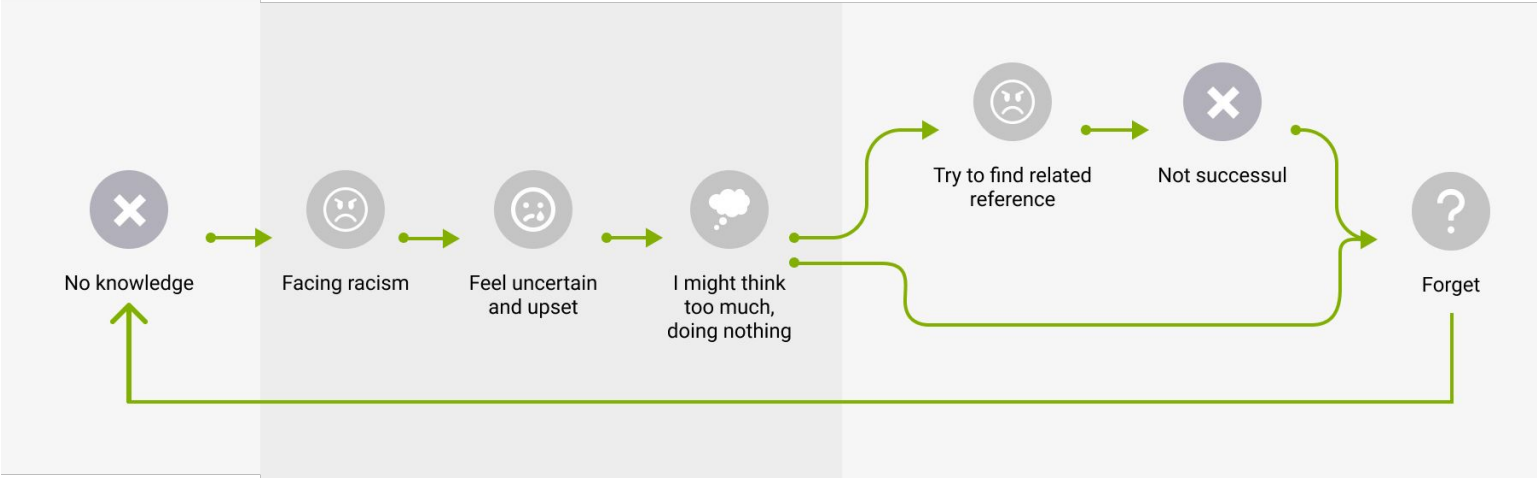


MENTAL JOURNEY MAP - WHEN EXPERIENCING RACISM

Before

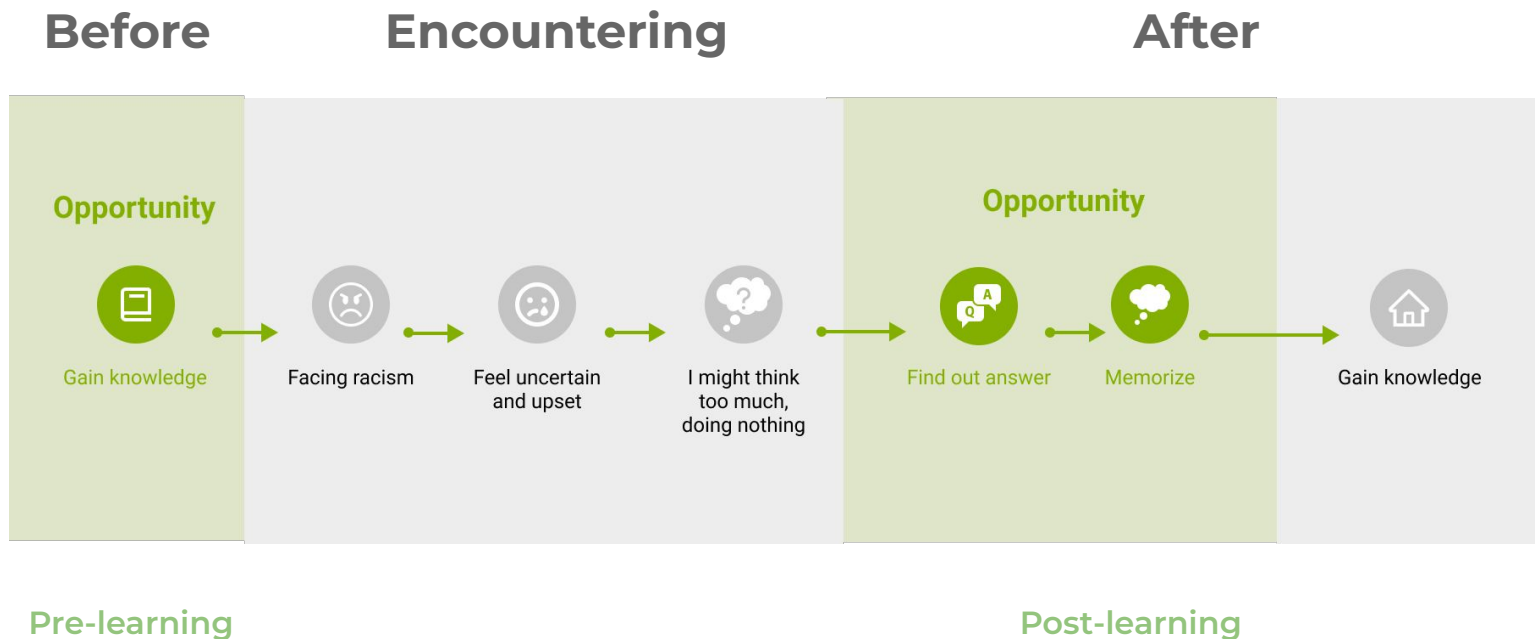
Encountering

After

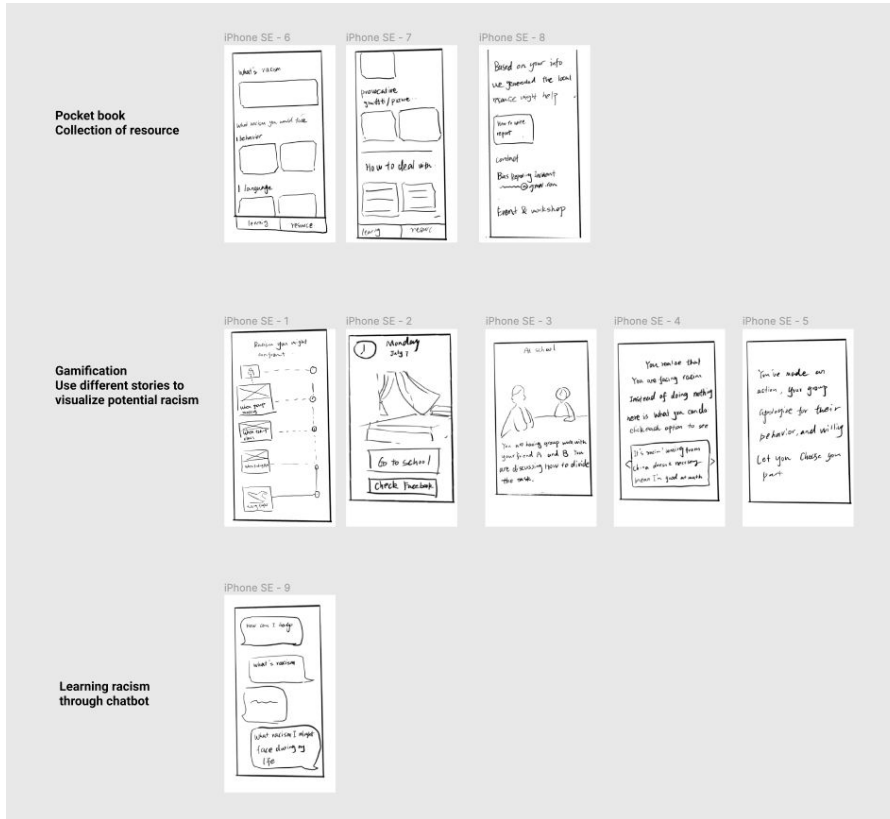


MENTAL JOURNEY MAP - WHEN EXPERIENCING RACISM

I continued conducted secondary research to understand their mental status when experiencing the “unhappy moment”. First Chinese student usually came with insufficient knowledge because of culture background, the concept of “racism” is something we barely talk about in our life. When the racism comes to them, they only feel upset and confused, but do nothing. Afterwards, in a very short amount of time, they usually try to find the reference, it's either searching in their mind, or ask to their close friend. This part usually not successful, because their friends were sharing the same culture background. As time goes by, they forget the trauma, until the same thing happen again. I identified two possible learning opportunities. We can provide related reference before things happen and when they are trying to search the reference. I call them pre-learning and post learning moment.



IDEATION



A wikipedia-like digital book collect info about racism, how to deal with it

Pre-learning-focused

Creating a series of storytelling interactive game to visualize the racism around on/outside the campus

Pre-learning-focused

Student can identify whether they are facing racism through conversation interaction

Post learning-focused

CONCEPT TEST

I conducted remote test with Chinese international student who've experienced racism remotely

	Pocket Book	Gamification	Chatbot
Feedback	<p>Easiest development</p> <p>Feels like reading textbook. I'm not sure I would have interest in it</p>	<p>Very immersive and I like how storytelling it is</p> <p>Not sure if it will work, because racism could happen anywhere. I would be hard if you want to storyboard all the cases</p>	<p>I like the idea. Very on-demand</p> <p>I can also see how it also can help with mental health. Experiencing racism is not fun, very traumatic. What we need is not just to answer the question, but also give me a hug...</p>

CONVERSATION FLOW

I first designed the overall conversational flow

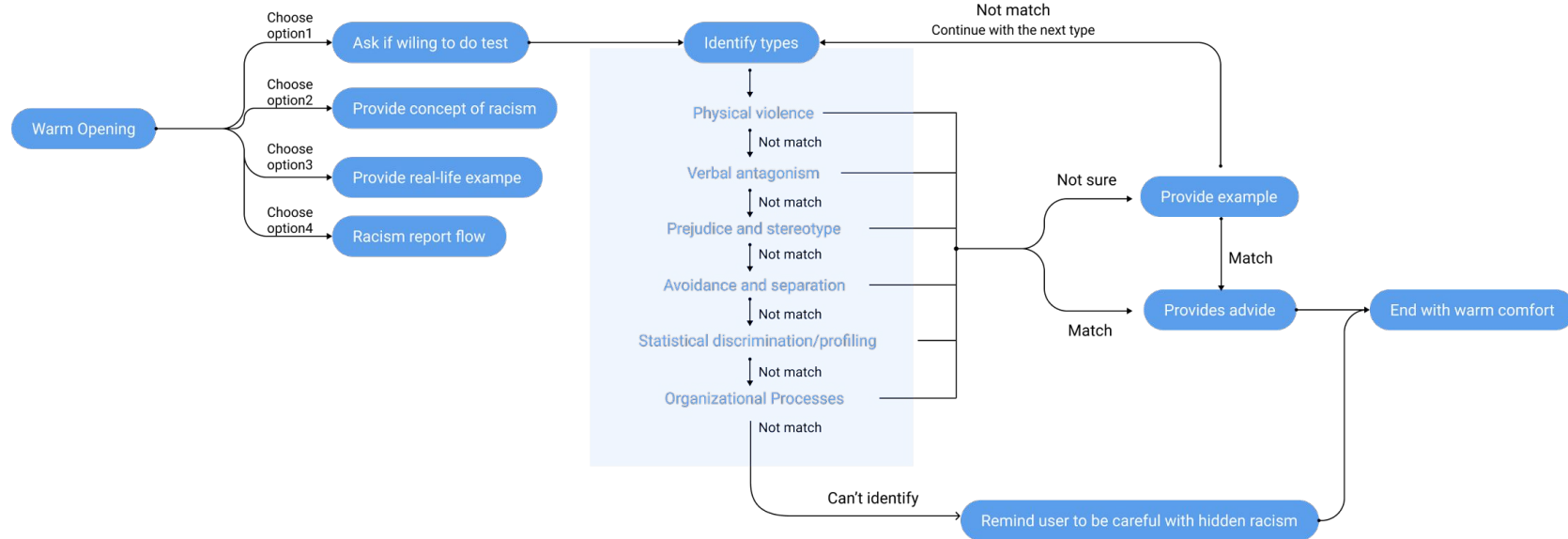
It should contain the initial onboarding, knowledge search, and inquiry part,

because of time, I would only focus on the onboarding where student set up account and inquiry part, where the chatbot can help student identify racism and give out suggestion

Onboarding
First-time user



Main flow
Student seeks for help



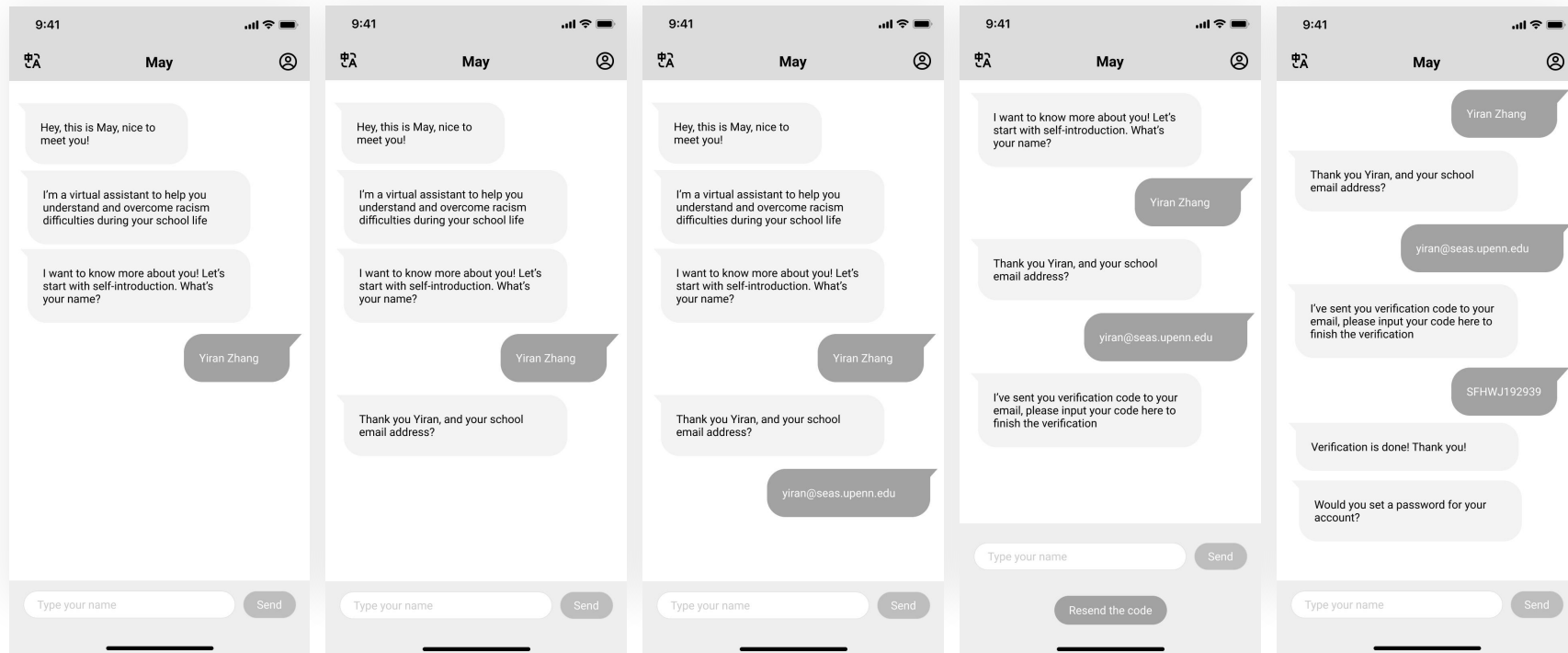
CONVERSATION FLOW - Onboarding

Onboarding
First-time user



Main flow
Student seeks for help

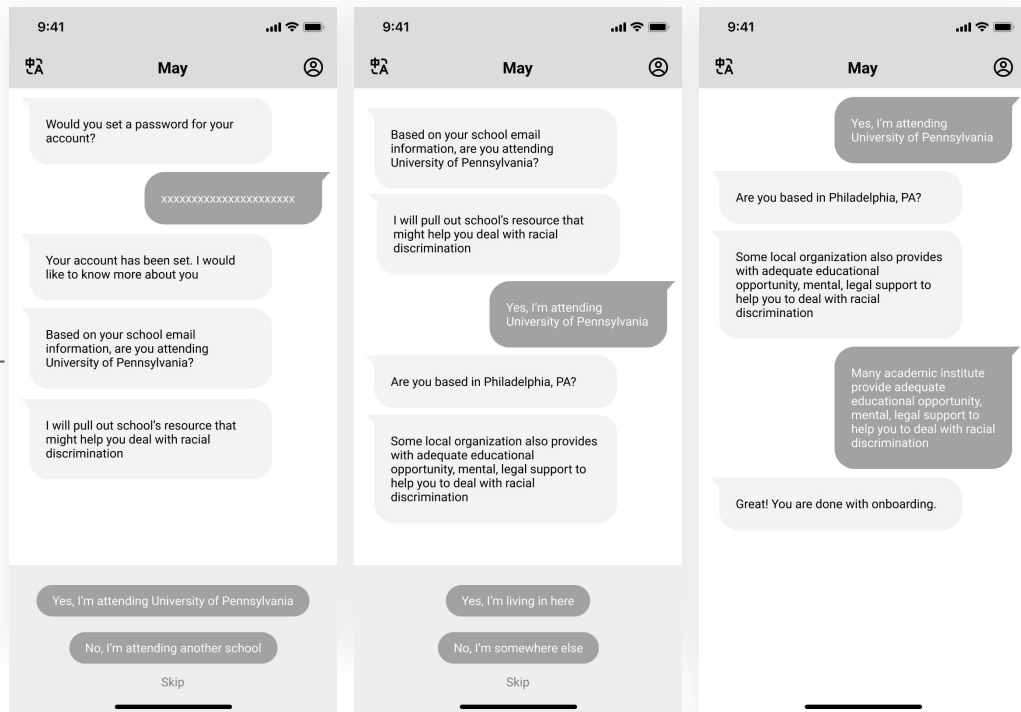
WIREFRAMING - Onboarding (1/2) - Set up the account



NEXT

School email is for verify
user's school identity

WIREFRAMING - Onboarding (2/2) - Personal information



Confirming school is to import school's related support into the app. When users need any help, the app will pull these resources for users

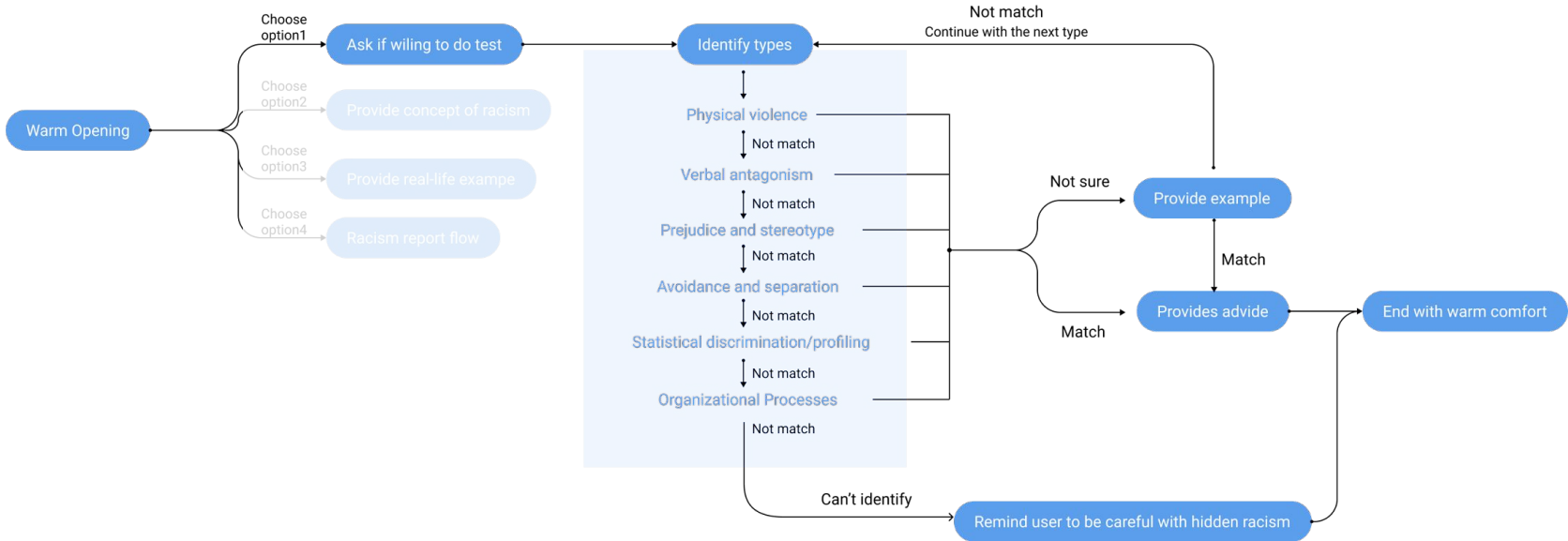
Same to the local resource

CONVERSATION FLOW - Main flow

Onboarding
First-time user



Main flow
Student seeks for help



HOW DID I DESIGN THE CONVERSATION FLOW - Category

Rerence



[Measuring Racial Discrimination \(2004\)](#)

4 theories of discrimination

National Research Council; Division of Behavioral and Social Sciences and Education; Committee on National Statistics; Panel on Methods for Assessing Discrimination; Rebecca M. Blank, Marilyn Dabady, and Constance F. Citro, Editors

Intentional, Explicit Discrimination

- Verbal antagonism:
- Avoidance:
- Segregation:
- Physical attacks:
- Extermination or mass killings

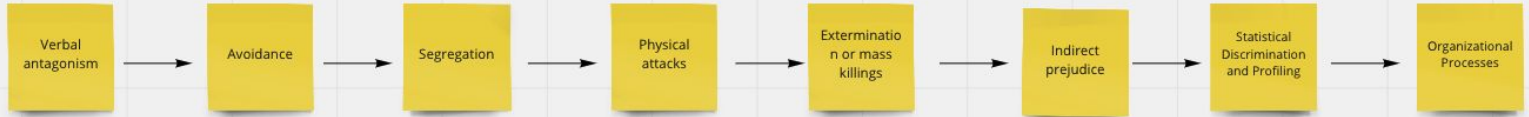
Subtle, Unconscious, Automatic Discrimination

- Indirect prejudice
- Subtle prejudice

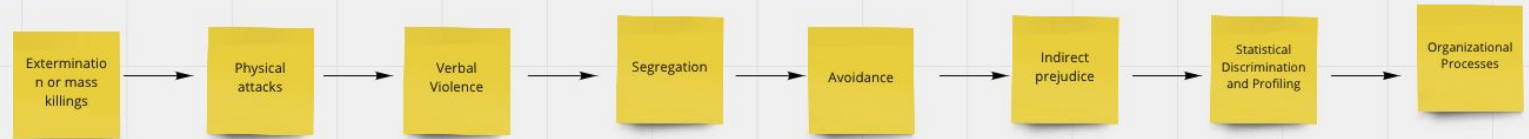
Statistical Discrimination and Profiling Organizational Processes

HOW DID I DESIGN THE CONVERSATION FLOW - Category

Original



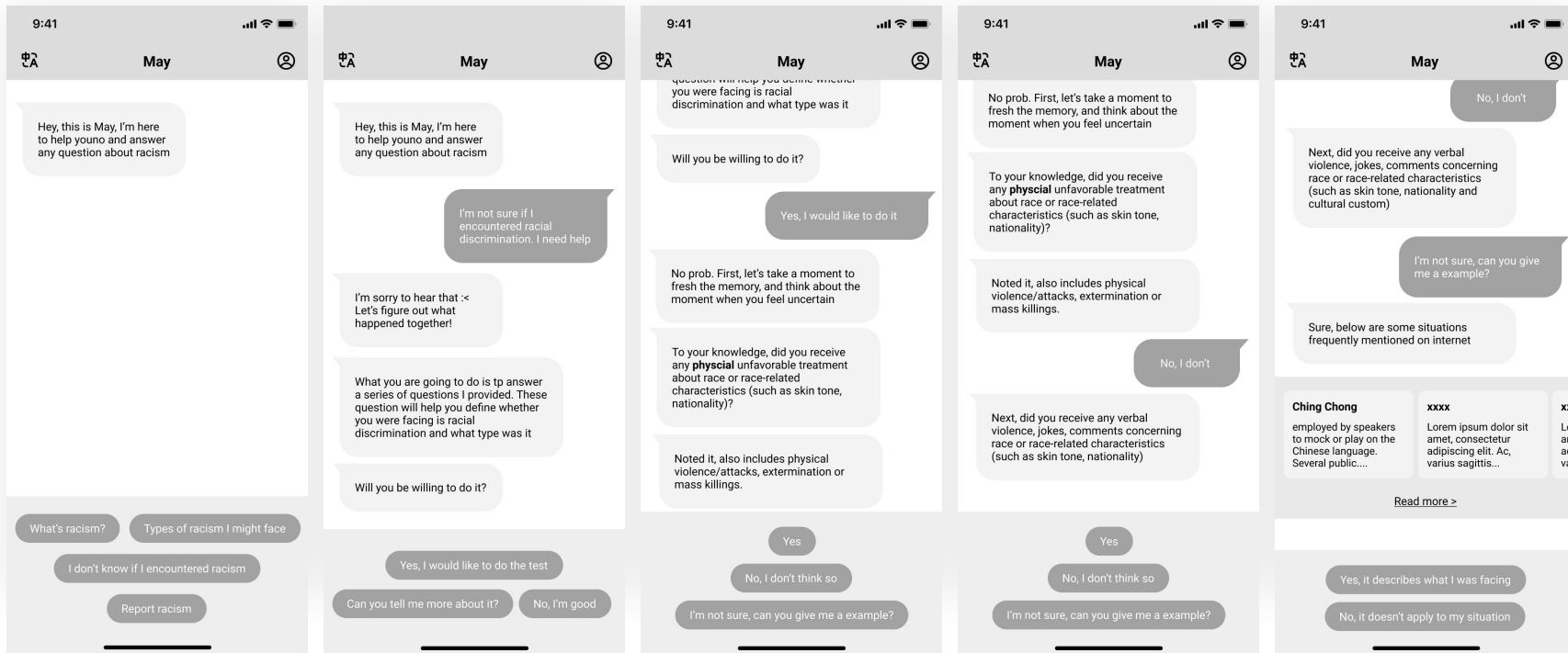
Reorder 1



Reorder 2



WIREFRAMING - Main flow - Yiran ask for help to recognize racism



NEXT

Lilu feel uncertain if she is facing racism. She opens the app, and see she is provided with a few essential options on the landing page

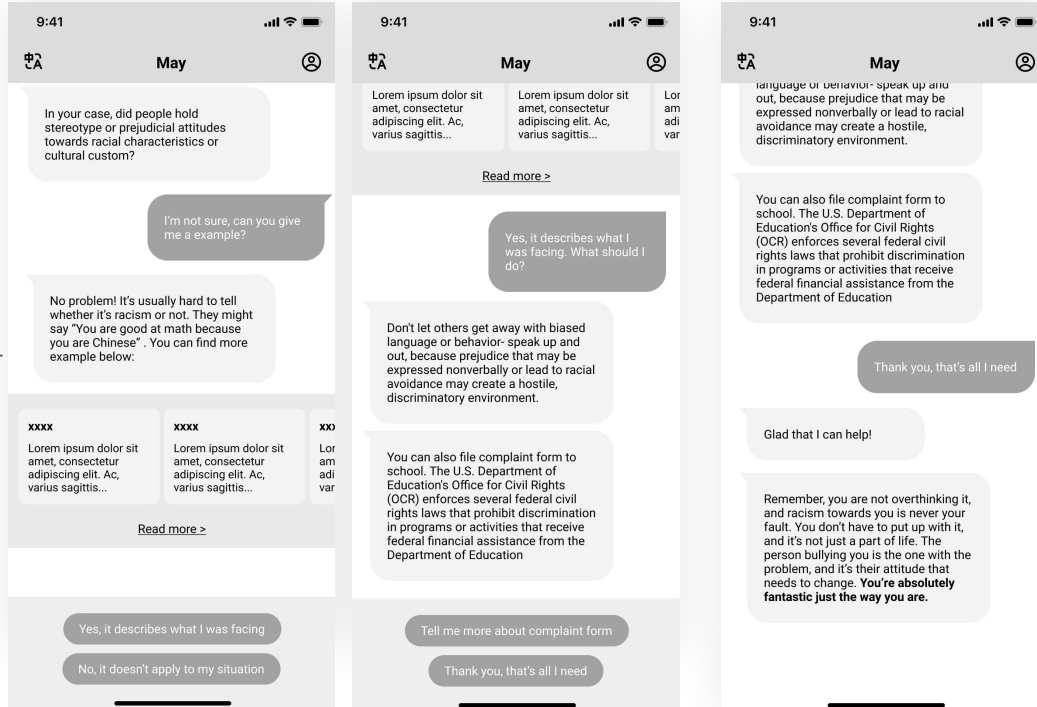
hit the "I don't know if I encountered racism". The virtual assistant provides with help.

starts the test help her identify what types of racism she was encountering

The screen displays the scenario when she thinks the option doesn't match her situation

The screen displays the scenario when she wasn't sure about the racism described by May, and Yiran request examples

WIREFRAMING - Main flow - Student ask for help to recognize racism

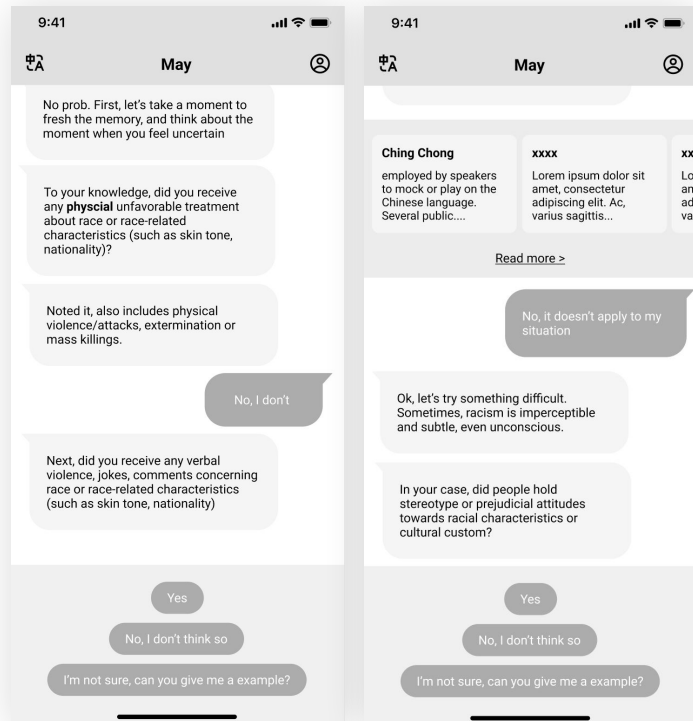


The screen displays the scenario when Liliu thinks this type of racism is what was facing, and the virtual assistant provides with advice

The virtual assistant gives Liliu a warm e-hug as closure

ITERATION

Quickly run the prototype to the students



Ambiguous types option

"I choose the first one because I didn't know whether the later types match it better"

"I think it can fall into both type"

IMPROVEMENT

But I know how to help you. Here is what we're gonna do: I will provide **seven types of racism**, and I will walk you through all of them to find out which option(s) that applies to your situation.

Open to multiple answers

In the next a few minutes, I will walk you through the following types of racism:

1. Physical violence
2. Unfavorable behavior
3. Verbal violence
4. Prejudice and stereotype
5. Avoidance and separation
6. statistical discrimination/profiling
7. Organizational Processes

You can skip and come back later if you feel uncertain

I also prepared many real-life example to help you better understand them

Showing overview of the test

Sometimes, racism is imperceptible and subtle, even unconscious.

In your case, did people hold stereotype or prejudicial attitudes towards racial characteristics or cultural custom?

Indicate would tell you how many question you've skip

The page number on the top indicate how many steps have left

3/7

< 1

Yes, It happened on me

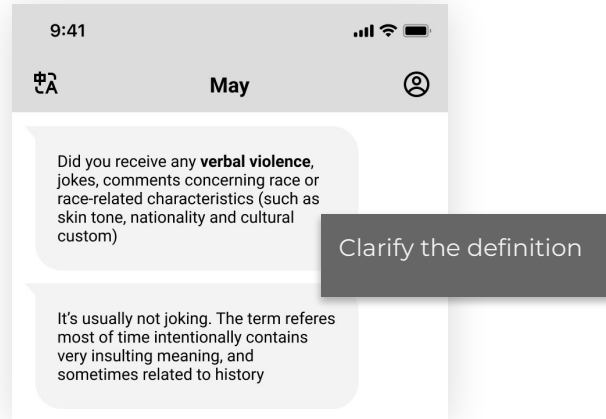
No, I don't think so

I'm not sure, can you give me a example?

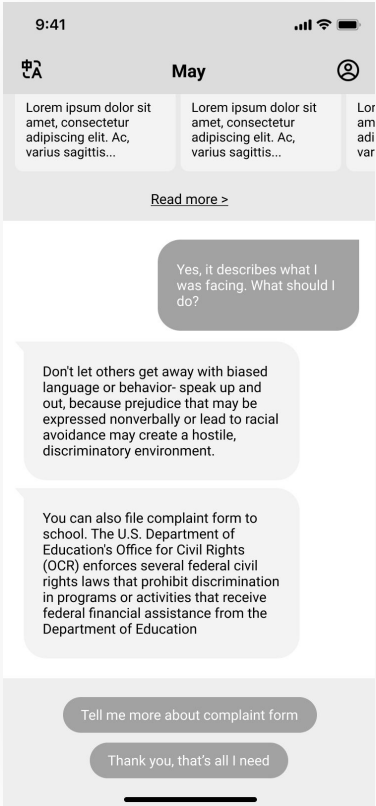
>

The arrow allows users the jump to check other options ahead

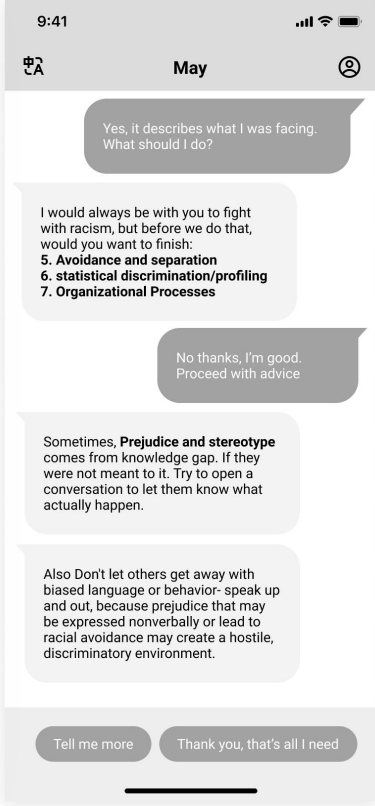
IMPROVEMENT



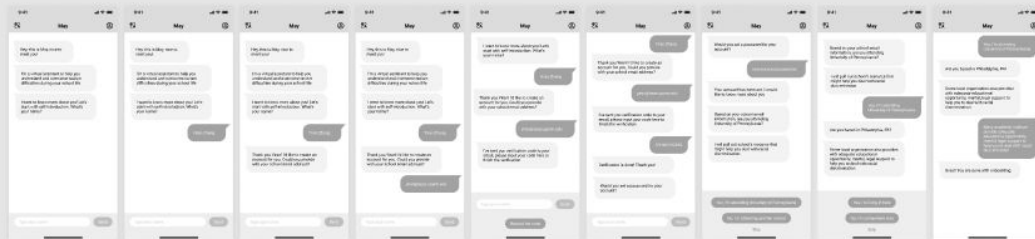
DIFFERENT RESPONSE



Verbal violence



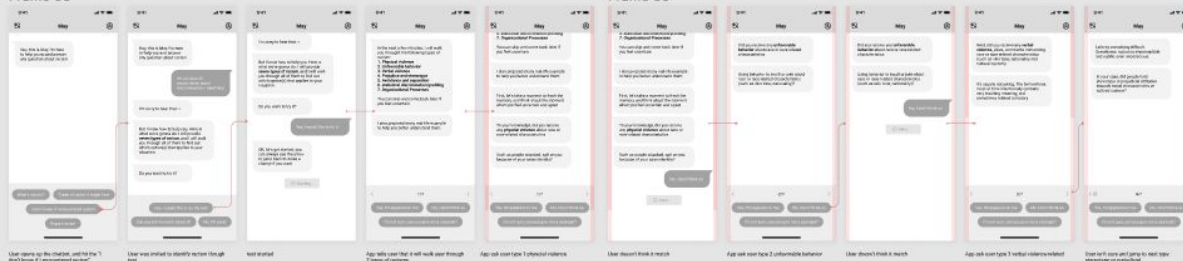
Prejudice



School email address is to verify your student's identity

Confirming school is to import school's related support to app. When users need any help, the app will put these resources for users

Frame 38



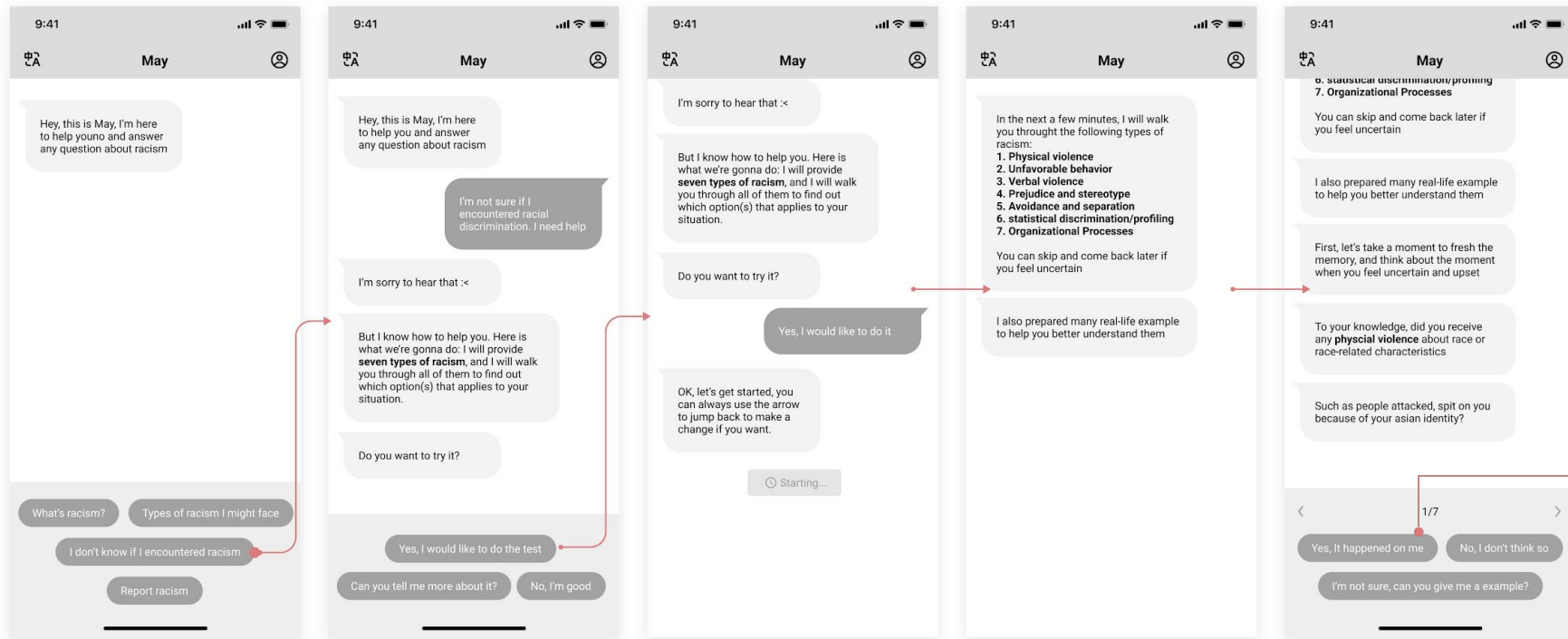
Frame 40



User doesn't like one to better match from text case, so user help and improve

User asks information or preparation type is a placeholder and address with app. The app will suggest suggestions and could be based on user's app

DELIVERABLE - WIREFRAME - Check racism type (1/3)



User opens up the chatbot, and hit the "I don't know if I encountered racism"

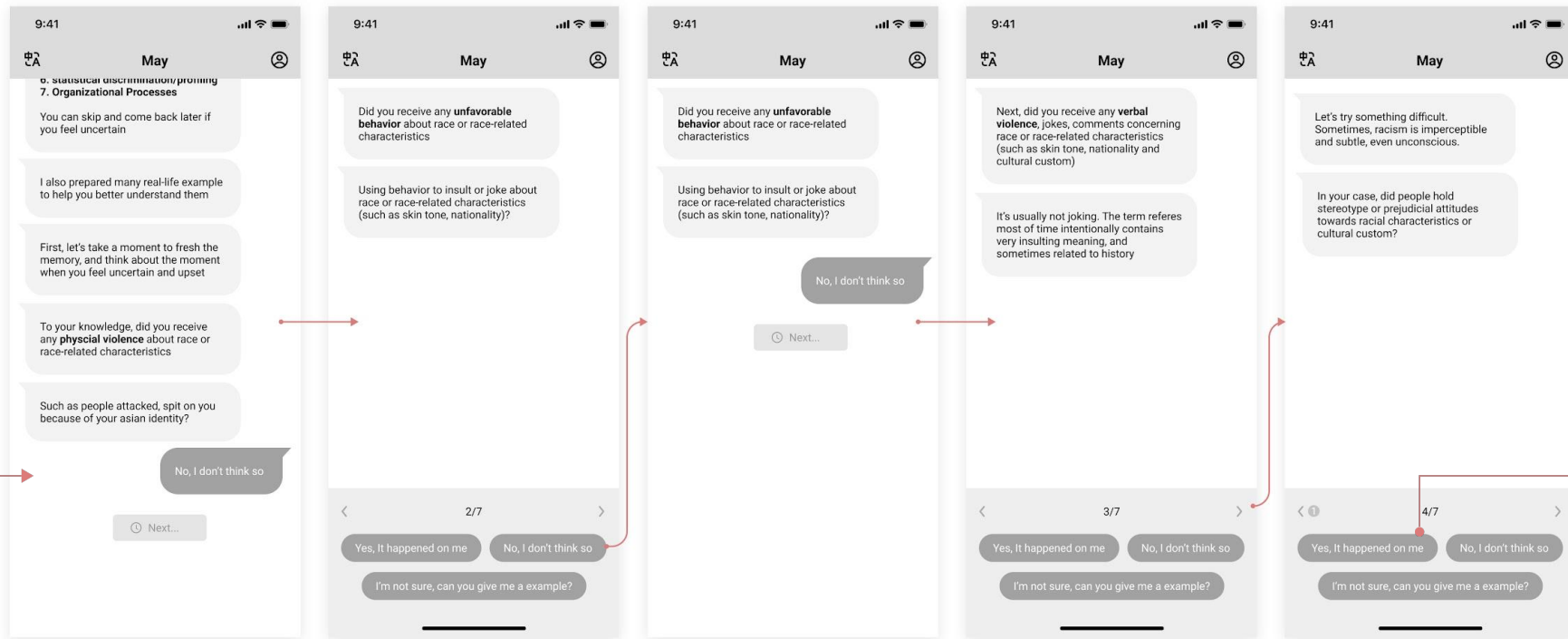
User was invited to identify racism though test

test started

App tells user that it will walk user through 7 types of racism

App ask user type 1 physical violence

DELIVERABLE - WIREFRAME - Check racism type (2/3)



User doesn't think it match

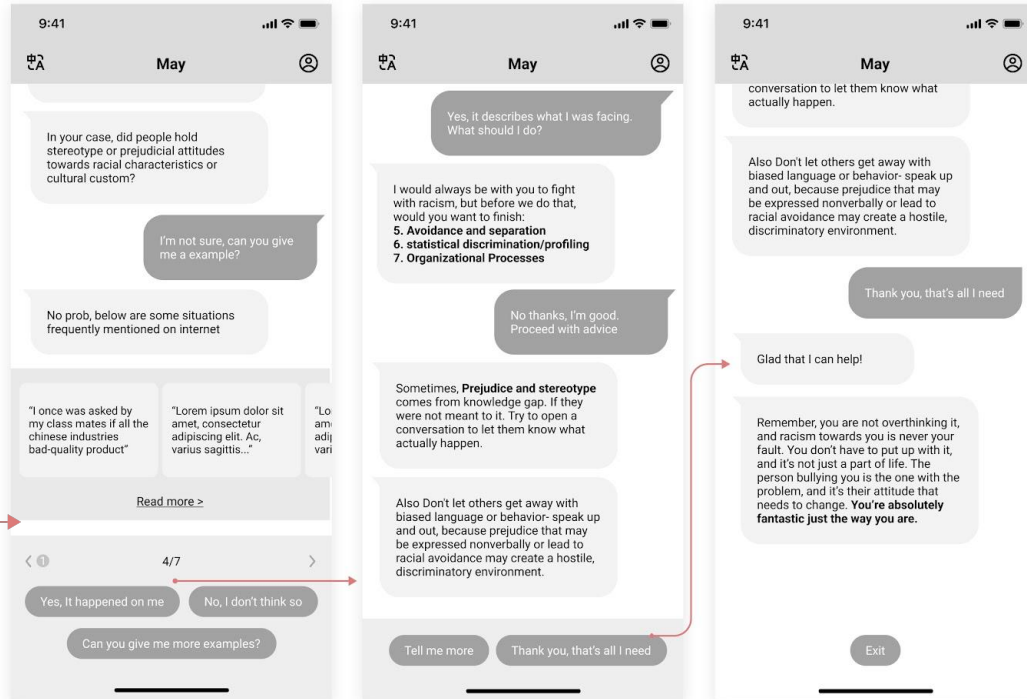
App ask user type 2 unfavorable behavior

User doesn't think it match

App ask user type 3 verbal violence-related

User isn't sure and jump to next type stereotype or prejudicial

DELIVERABLE - WIREFRAME - Check racism type (2/3)



User doesn't if this one is better match than last one, so user request examples

User feels stereotype or prejudicial type is a better match and confirm with app. The app sent some suggestion and comfort based on user's reply

TESTIMONIAL



“

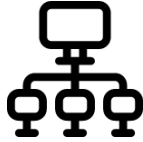
I really like the solution. It feels that someone is actually respond and try to help me



“

I like how you add the warm e-hug at the end. So considerate

NEXT STEP & SELF-REFLECTION



**Better classification
of racism**



**Incorporation of
natural language
processing**



Various advices



**Meaningful
education**

Thank you

DECOMPOSE DESIGN BRIEF

The design brief mentions the following concept: **school, safety, violence**. I brainstormed and decomposed the three general terms into more specific areas, and evaluated the resources I have on hand as well as the topics I am potentially interested in to help me narrow down the topics.

School types:

Preschool, Elementary school, middle school, high school, high school, college, University, academic program.

Safety types

Physical safety: Avoiding injury

Sense of safety: providing psychological and emotional safety

Potential topic around the school violence?

Bullying (Physical, emotional, online, etc), Fighting or assault, Bringing or using drugs, Harassment, Vandalism, Robbery, theft, Bringing weapon, Threatening, Shooting, bombing

Location

North America. China etc

Potential stakeholder

Students, parents, families, nanny, school authorities, policy maker, academic researchers, school security, alumni, non-education employees

Where

Inside school or outside school

RESEARCH - INTERVIEW OVERVIEW

In 2-3 days, I talked with

16

People

11

Students

3

Teachers

2

Caregivers

They come from China, USA, and Canada, East coast to west coast with different ethical background.

I learn what student's typical day in elementary and high school look like.

I learn what their parents and teachers role during the process and types of transportation they usually take



SIMILAR PRODUCT/COMPETITOR

