

## Evaluation of Individual Prototypes and Implication

### Evaluation of Individual Prototypes:

#### *Kecheng – Write It Down*

There are two main problems in this design. One is the lack of clarification on icons. This can be solved by either making additional verbal explanation to those icons, or by changing these icons to the conventional icons in the main social media corresponding to their function. The other problem is the position of back button, which is at the right up corner, is not in accordance with the main systems (i.e. iOS and Android system).

One of the best idea is the simple and clear look on the first page, and users do not have to log in or register to use this app. Since people will prefer to skip the log in step before they take a look at the app for the first time, it will give them a clear idea about the main functions before they decide to register.

#### *Gypsy – Joy*

The main problem in this design is that it resembles some main social media, and does not appear to give the users a clear idea about its main purpose, which is to encourage them to think of and share the happy things in their lives.

One of the best thing in this design is that it provides a wide variety of topic for the user to choose from, and it divides topics into “popular topic” and “friends’ topic”, so that users can not only see the most popular topics, but also what their friends are writing about. This feature will enable the users to keep a closer connection with their friends and thus create a warmer society for the users.

#### *Jervis – No name*

The main problem is on the art design of the interface. Font and size of icons make the user hard to read, and the interface is not designed delicately to create an atmosphere that will encourage the users to think positively. Too much space was left, and users will not be encouraged to write by looking at the interface.

But the simple look is preferred by some, since the main functions are put into a single icon on the first page instead of being all put to in front of the users. And after some time of use, users will find it convenient to be able to call the functions by a single click.

#### *Jasmine – BeeHappy*

The main defect of this design is too much information is given in some pages, especially on the Homepage. This may make it confusing for new users about the main function of the page, and it takes too much time and work load for the users to figure out the meaning of each section and icon. It can be improved by moving some functions into a new page.

The function of mood tracing fascinated some people, and it will help the users in personal emotion management. It is a really good idea in helping people controlling their mood, which is part of the goal of the product.

#### *Sue – Joy Diary*

In this design, too many words were tried to be put into each page, which not only makes the font size to be too small and hard to read, but also makes it hard to appear clear and nice. Also since it is designed for Android users, position of some icons are not very easy to be found for iOS users. One of the good ideas is that it gives a calendar that traces the dates on which the users did or did not write diaries. This will alert the users and enhance their will to write diary every day.

**Implication:**

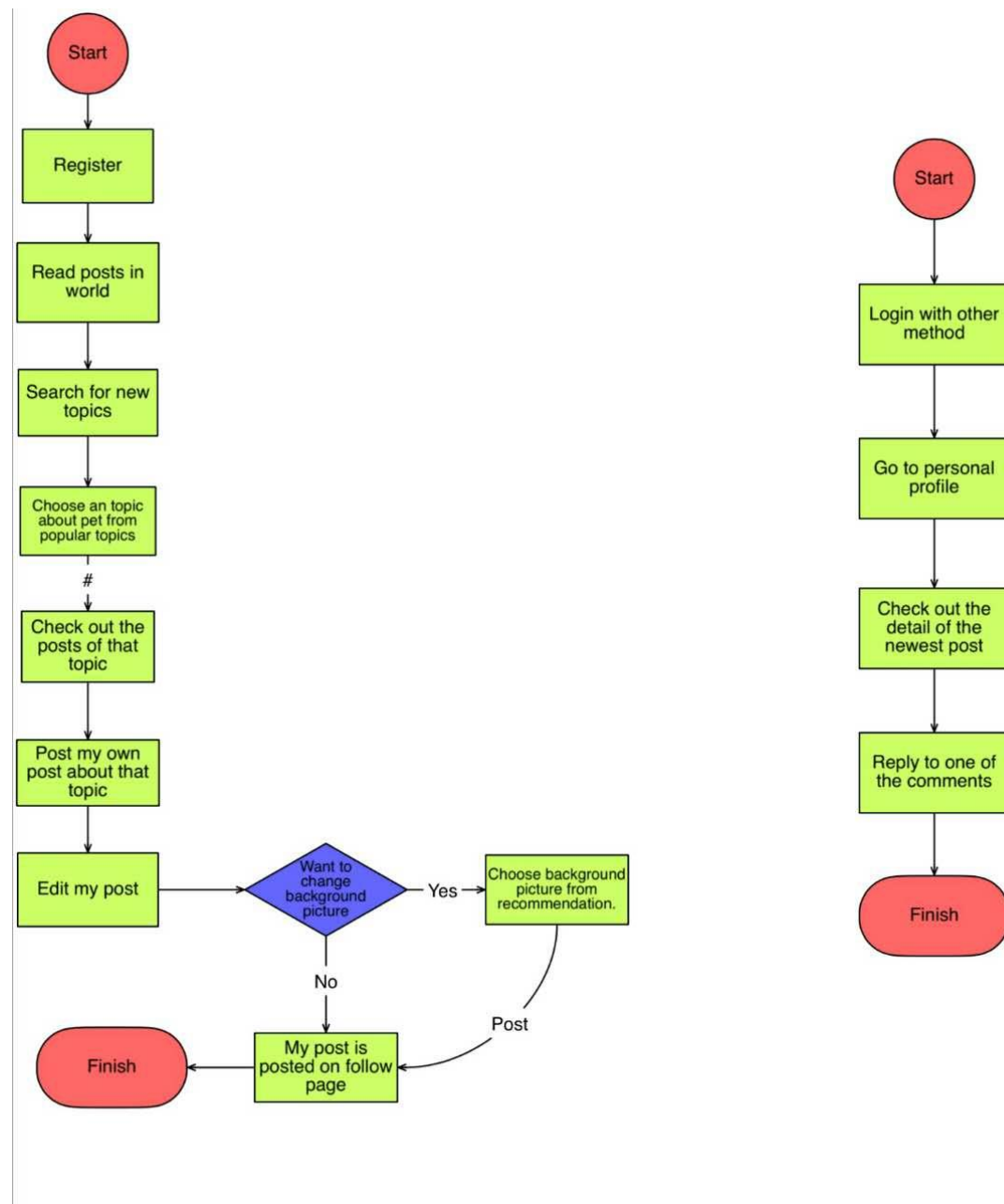
Since the ideas of each design are very different from each other, we decided to develop the functional prototype based on Gypsy's prototype.

We took the main structure of Gypsy's prototype, and took the name of Jasmine's design – BeeHappy – as the name, which will deliver a more direct happy emotion to the users. The logo was designed later after it, which contains two little bees.

We also added Jasmine's "See Secret post" function to the personal profile to help managing the personal profile, and expanded it into three different categories, by which the users can see their own posts – All, Show only to followers, and Secret.

## Interaction Sequences

We designed two main interaction sequences. In the first sequence, the user is assumed to be a new user, and went to check for the topics and posted a new post after logging in to it. In the second sequence, an old user logged in to reply for a new post on his/her old post. Here are how they go:



## Usability Testing Plan for Formal Usability Test of BeeHappy

### **Roles of participants:**

Users -- by participants in recruitment;

Facilitator – by one group member;

Observer – by one group member.

### **Recruitment:**

We plan to recruit 10 to 12 participants in our formal usability test, including 4 or 5 classmates from another group, and excluding the professor (Ilona Posner). We'll get those participants from our friends and roommates in the Berlin program, and may try to recruit other groups of people if no enough participants are found.

### **Pre-test preparation:**

We'll first ensure every participant to read through the Research Protocol and try to get their agreement on the Consent Form. Then for those having agreed on the Consent Form, we'll have a pre-test questionnaire to ensure the participants are validated as our target audience, and encourage them to think aloud. For those who don't understand the think-aloud skill, a brief example will be given by having one of our group member to think aloud in writing a new post with Facebook.

### **Plan for during the test:**

We'll have a 40-minutes' section of test, including 30 minutes of task completion on three tasks and interview, and 10 minutes of post-test questionnaire. Observation and questions will be conducted by the test facilitator throughout all the three sections.

In the task completion section, the participant will be given two different tasks to complete followed by a brief interview about experience, expectation and suggestion for the app. In the questionnaire section, the participants will complete a brief questionnaire in regard to their feeling about this app.

### **Debrief with participants:**

We'll thank the participants for their devotion of time and effort to the test, and provide them with our contact information in case they want to withdraw their information anytime or have any further question regards the test result.

## RESEARCH PROTOCOL TEMPLATE

1. **Project Title:** Formal Usability Test of BeeHappy
2. **Investigators:** Jingyu Su: jingyu.su@mail.utoronto.ca  
Weining Chen (Jervis): jervis.ning@gmail.com  
Yuzhou Feng: gypsy.feng@mail.utoronto.ca  
Ziyang Jiang: ziyang.jiang@mail.utoronto.ca  
Kecheng Li: kecheng.li@mail.utoronto.ca
3. **Purpose:** The purpose of our research is to understand the defect of our functional prototype to help us develop the design of novel interactive computational media that are intended to be useful to people in bad mood. A brief description of our design concept is: enable people to think positively in daily life and share with their friends.
4. **Process to be followed:** We will brief the participants about the purpose of the study, explain the consent form to them, and ensure that they sign the consent form. We will then engage the participants in an hour-long formal usability test. We will also with their permission make observations as follows: observe and make video record of the participants' verbal and gestural behavior and facial expression.
5. **Participant selection:** Participants will be chosen from college students and young workers. They will be identified via pre-test questionnaire and selected according to their use of smart phones. In general, they will be characterized by college students and young workers with a frequent use of smart phones.
6. **Relationships:** Our relationship to the participants may be described as follows: friends, families, peer students, professor and students, roommates.
7. **Risk and benefit:** There will be minimal risk to the participants, for example that they feel that they have wasted their time. The only benefit will be to contribute to the education of the investigators. Participants are free to withdraw before or at any time during the study without the need to give any explanation.
8. **Consent details:** We will brief the participants about the purpose of the study, and explain the **attached consent form** to them, and ensure that they consent to participate and sign the consent form.
9. **Compensation:** Participants will receive no compensation.
10. **Information sought:** The information to be sought is described in the attached questionnaires, test script and interview script.
11. **Confidentiality:** Information will be kept confidential by the investigators. Names or other identifying or identified information will not be kept with the data. The only other use will be to include excerpts or copies in the assignment submitted, but names and other identifying or identified information will not be submitted.



## CONSENT FORM TEMPLATE

### Consent Form: The Formal Usability Test of BeeHappy

I hereby consent to participate in a research study conducted by Jingyu Su, Weining Chen, Yuzhou Feng, Ziyang Jiang and Kecheng Li for an assignment in University of Toronto Computer Science 396, Designing Systems for Real World Problems.

I agree to participate in this study the purpose of which is to understand the defect of the mobile app BeeHappy.

I understand that

- The procedures to be used are questionnaires, interview and observation.
- I will receive no compensation for my participation.
- I am free to withdraw before or any time during the study without the need to give any explanation.
- All materials and results will be kept confidential, and, in particular, that my name and any identifying or identified information will not be associated with the data.

#### PARTICIPANT

Name (please print)\_\_\_\_\_

Signature\_\_\_\_\_

Toronto, Date\_\_\_\_\_

INVESTIGATOR(s) Name\_\_\_\_\_Signature\_\_\_\_\_

\_\_\_\_\_

## Pre-test Questionnaire for the Formal Usability Test of BeeHappy

By completing this questionnaire, you can help us understanding the needs to different user groups better. If any of these questions makes you uncomfortable or you want to stop at any time for any reason, you can stop immediately without any guilt, and we still appreciate your effort put into our test.

*Please check ONE option that best apply to your situation under each question by circling it.*

1. What is your gender?
  - a. Male
  - b. Female
2. How often do you use your smart phone?
  - a. Over three times every day
  - b. Every day but no more than three times a day
  - c. Every week but no more than five times a week
  - d. Less frequent than once a week
  - e. I don't use a smart phone
3. How many apps do you have in your smartphone?
  - a. More than four pages
  - b. Two to four pages
  - c. No more than two pages
  - d. I don't use a smart phone
4. Do you use social media as a method of de-stressing in your daily life?
  - a. Yes
  - b. No

Thank you for completing this questionnaire! All your personal information in this survey will stay confidential, and we may choose you as our participant for further test according to your answers in this questionnaire.

If you have any further question, please ask the test facilitator immediately or contact [jingyu.su@mail.utoronto.ca](mailto:jingyu.su@mail.utoronto.ca) any time after the test.



# Test Script of the Formal Usability Test of BeeHappy

## **Introduction and Consent**

Thank you so much for your participation in our usability test. I am a student at University of Toronto. Our team are developing an app that aims at helping people to get rid of bad mood and create a supportive social environment around them. We have made an app that users could post some positive thoughts or joyful moments and share them with followers and the world. Every post is relative to a happy topic.

If you agree to participate, I'll give you two tasks to complete with this app, and I will ask you questions about how you think of the app, your expectation towards some of the pages and how you will interact with the app. Also, we will record video while you are doing the test. Please try to speak out loud all your thoughts and describe what you see during the test. If you want to press any button, please tell me what do you expect to appear after that, and do not do any actual motion until I let you to. This will take about 30 minutes to complete the whole test.

After the test, you would be asked to fill out some post-test questionnaires that will provides us with more feedback about your experience. That take you about 10 minutes.

We'll take notes about your initials, age range, sex, and job. The video would be used for the study purpose only and you will not be identified in any report or publication of this test or its results. All your information provided in this test will never be related to your name, and we'll make every effort to ensure that to be kept confidential.

If you agree to participate in this test after you read this consent form, please give us your consent and sign at the bottom of this page.

Let's get start.

## Test Script


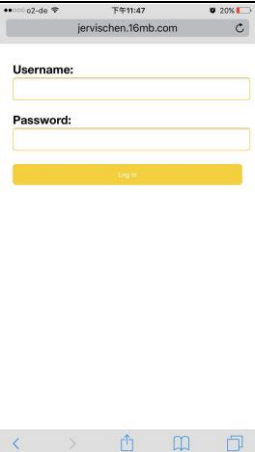
### Flexible Questions:

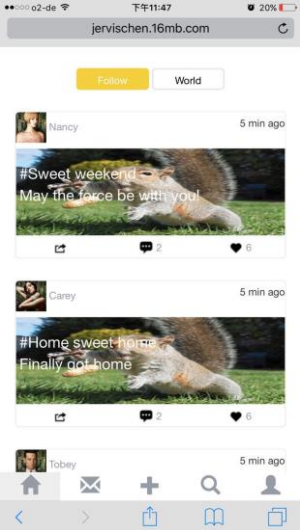
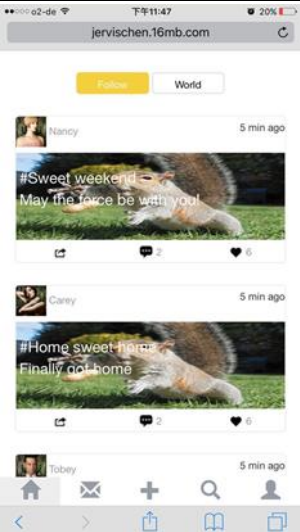
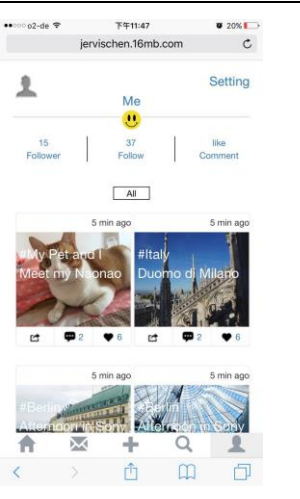
Some questions will be asked for multiple times by the facilitator during the test in order to facilitate the test and collect information. The facilitator will decide when and what to ask depending on the situation during the test. Here are some of the possible flexible questions:

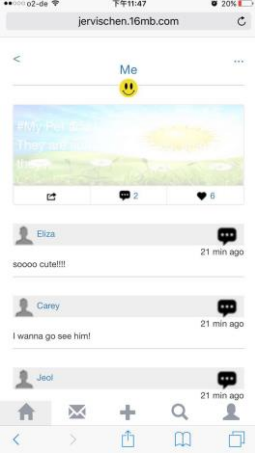
1. What do you see in this page?
2. What do you think this page is mainly providing?
3. What do you expect to happen after you click on this button?
4. What do you think is the function of this part?
5. Please describe the step you think you're going to go through here.
6. Why do you hesitate?/Do you find anything confusing here?

### Script:


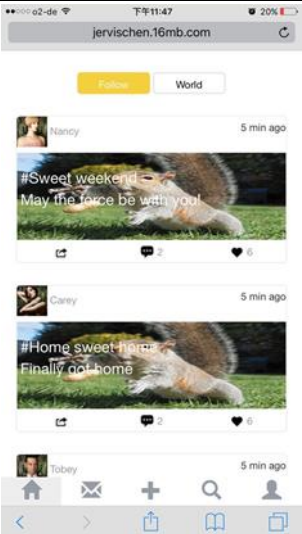
#### Task I: Reply to a new comment

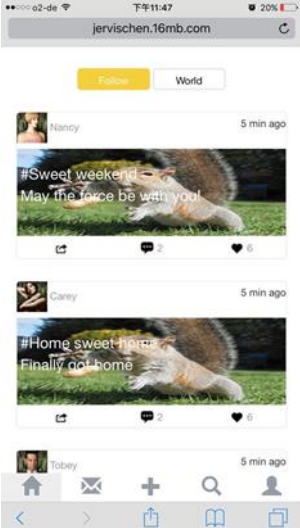
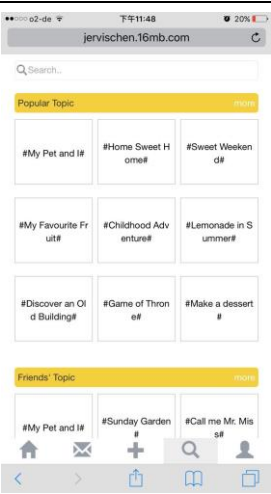
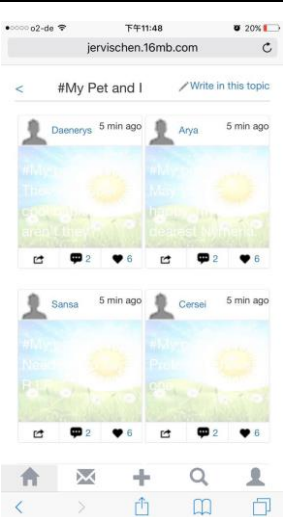
Question	Screenshot	Notes
Now assume you are an old user of this app trying to log in to your account on a new device. Also note that logging in with Facebook or Twitter will give you a new account, which is not what the one you want. What you will do?		
What you see on this page, and how can you do to get into your account?		

<p>Could you tell me what do you see on this page?</p>		
<p>Now you want to check out the post you have posted an hour ago, what are you going to do?</p>		
<p>Assume you have posted a post about your pet, and you want to see more details about it. What are you going to do?</p>		

<p>Now you want to check for the comments and reply for the latest comment. What will you do?</p>		
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## Task II: Read topic and write a post

<p>Now assume you are a new user of this app. What will you do to start using it?</p>		
<p>Could you tell me what do you see in this page? What do you think they are for?</p>		

<p>Now assume you are not interested in any of the post in this page and want to find some more attractive topic. What will you do?</p>		
<p>Please assume you are attracted by the first topic and want to read more posts about it. What will you do?</p>		
<p>Now you want to post something on this topic. What will you do?</p>		

Please assume you want to have a background picture, but don't want to get it from the album. What will you do?



Interview:

1. How smooth do you think the process is?
2. What bothers you the most in the whole process?
3. How long would you stay for this if you can choose?

Post-test Questionnaire:

Now please fill out this brief questionnaire to help us improve our system. If any of these questions makes you uncomfortable or you want to stop at any time for any reason, you can stop immediately without any guilt, and we still thank you for your effort.

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

11. How likely are you to recommend our app (BeeHappy) to your family and/or friends? Please using a ZERO to TEN scale, where Zero means Not at all likely to recommend, and Ten means, Very likely to recommend?

1	2	3	4	5	6	7	8	9	10
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