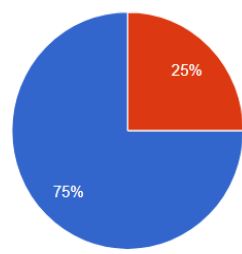


Background

I. Problem Cognition

스마트 캠퍼스에서 불편함을 느끼시나요?



<User Survey>

- Slow loading speed
- Login errors and server collisions
- QR tagging not being on the main screen
- complicated menu
- configuration access multiple functions

II. 1st Feasibility Test

(Interviewing 18 people)

Q. What's the most inconvenient thing about smart campus applications?



1. Uncomfortable due to lack of function

- Bus time 302, information on convenience facilities in school, HISNET mobile version, dark mode.

2. Inconvenient in functioning

- One-click complaints, application for a stay out of the dormitory, biometric authentication time of Handong Pay, inconvenience of moving the screen slide, error when accessing the notice, confirmation and time of dormitory ID, and some menus are not even executed properly.

3. Uncomfortable due to functional congestion

- The interface is messy, too many menus, icons and menu names are not intuitive.

Purpose of Prototype

1. Correction that causes cognitive errors (human error)
: it was difficult to solve the problem caused by abnormalities in functions at the prototype stage.
2. Adding a new function that considers the user's physical characteristics.

Plan for Prototype

1. Reorganizing the Start Screen
 - A) Add: Search bar for announcement, Notification for new announcement, Weather Widget
 - B) Change: Decreasing size of school notice banner
2. Setting personal quick menu "My Favorite Menu"
: Users can save their own favorite menus in the quick menu slot
3. Adding a Dark Mode
4. Reorganizing the Menu Screen
: Most used menus, Category classification

Changes of Prototype



Feasibility Test using Prototype (18 people)

1. Improvements compared to the previous app

- Intuitive reinforcement by changing UI design
- Emotional Design
- Reducing time by organizing quick menu
- Physical consideration of users through dark mode

2. Any inconvenience(improvement) in the current prototype

- Removal: School Notice Banner, Weather Widget, ID verification
- Change: bell button and notice alarm button at the top right (there is no difference at present), quick menu, menu icon/font size (currently too small to recognize), dark mode button (currently difficult to intuitively recognize)
- Add: Go to the Hisnet button, menus in the category

Plan for Future

1. Adding alarm function

: Time for attendance tagging before class, closing assignment, alarm tailored to wake-up.

2. Adding the HISNET Link and mobile version

3. Adding a new menu

: Information about classroom location, facility reservation, bus location check, school department phone number through map.

4. Existing menu improvement

: Handong Pay (Easier to use), food information (week/monthly), school notice (can be searched by number), ID verification (certification x)

5. Changing the main screen

: Listing all the notice, placing the most used menus on the main screen, removing the weather widget.

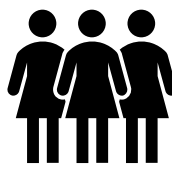
Experiments

Purpose

To find a **problem** with an existing Smart Campus app and check whether the problem has been **solved** when Smart Campus is replaced with the **new version**

Supplies

Participants



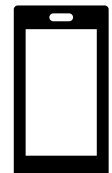
- Handong Students who use Smart Campus Application
- Two students from each grade Freshman, Sophomore, and Junior and Senior

Equipment



- Eye tracker
- Cell phone
- Camera
- Survey Paper
- Introduction of the experiment

Methods



- Compare the prototype to the existing smart campus
- Get feedbacks from the users using an eye tracker.

Quantitative

How much users touched and how quickly users found it (count the second)

Qualitative

How convenient did users felt comparing to the previous version (using eye tracker and interview)