

A7 – High-Fidelity Prototype & Usability Study Instruments

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CSC 318: The Design of Interactive Computational Media

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Original Hi-Fi Prototype Link

<https://www.figma.com/file/Wvo0W8J51YHVXaW7MGSZIr/A7a-Prototype?node-id=0%3A1&t=QCuLp1hKpnfiX8IG-1>

Updated Hi-Fi Prototype Link

<https://www.figma.com/file/BVGsNI0bjYJmOo0oheKbII/A7b-Prototype?node-id=0%3A1&t=vB1vDWP5YFfYp1GI-1>

Link to join group project in Figma (in case the files below cannot be accessed):

https://www.figma.com/team_invite/redeem/vcqFXA8kDz36NRJPMIBQnP

Change Log (Current)

1. Goals settings page (AM PM select option)

The A.M. and P.M. feature received a lot of interesting feedback. One of them was the question of what would happen if none of the two were selected. The suggested solution was to have the circle button that alternates between only A.M. or P.M.. This is very important to our app because without the user justifying whether it was supposed to be A.M. or P.M., the information would be incomplete and hence the app won't function as expected.

2. Goals settings page (AM PM button placement)

Another minor change to the goals settings page is the placement of AM and PM buttons. Suggestions were given to avoid placing them side by side but instead stacking them to clearly differentiate the options. This is a very logical and apparent problem that we did not catch when designing. This change would help with error prevention.

3. Goals settings page (REPEAT headings)

Although no one has a problem with selecting the days they want to repeat, feedback received from the experts was to maintain consistency. Having a heading for each function is a great approach to consistency, which also help with user navigation. Hence, following the 'Sleep Target' and 'Wake Up By' headings, we would like to also include the 'Repeat Every' before the days' option.

4. Restrict app settings page

The limit on weekends option appears unclear to a lot of the users we tested. The unclear option causes user confusion and hence should be clarified further. To prevent such a problem, we would like to change it so that the users can gain more flexibility. We would like to take the design we've had on the goals settings page (repeat day button) and include them in the restrict app page. By this, users are also offered more freedom to select which day they want to apply the limit.

5. Home page (Profile Settings)

A lot of the users we tested our prototype on face difficulty with finding the account settings. They believe that profile settings should not be placed together with the app settings. Hence, one possible solution is to separate the two settings on the home page. The newly set

profile page button will be presented with the user icon and will increase the clarity of each button to the user.

6. Restrict app main page (Color code)

We are supposed to apply the idea of inclusive design in our application. We particularly failed to implement that in our restrict app main page. We used color-coded (Red, Yellow, Green) which would not be inclusive of color-blind individuals. So, a good inclusive design approach is to remove the color-coded headings and keep them under the same color.

Change Log (Future)

1. Consistency in theme, fonts, color scheme

Overall, the design appears to lack consistency according to some experts. Although some also praised the design, it is a good idea to have all feedbacks given combined and hence we would try to maintain design consistency in the color scheme and fonts used. Some pages includes calendar page, avatar page, restrict app settings page,

2. Calendar page

The avatar shown on each date of the calendar should represent some information. Possibly, add legends to show what each of the avatar symbolizes. This is a great way to add extra information without over-crowding the page. Even when unintended, some of the participants caught on that detail and think that it was a great design idea. Hence, we conclude that it should indeed be implemented in our design.

Updated Usability Study Instruments

Pre-Study Questionnaire

1. Age: _____
2. Pronoun: _____
3. Origin: _____
4. Average time spent on social media daily
 - a. ≤ 1 hour
 - b. ≤ 3 hours
 - c. ≤ 5 hours
 - d. ≤ 8 hours
 - e. > 8 hours
5. How often do you have difficulty sleeping at night?
 - a. Every night
 - b. Most of the time
 - c. Sometimes
 - d. Rarely

- e. Never, I always sleep well

Test Script

Scenario: Your name is Momo and you are a Gen Z individual (born 29 January, 1999). You hear from a friend that there is an app that will assist you in managing your time and social media usage to boost your sleeping habit and mental health. You also heard that this app offers a unique feature in which you have an avatar that is a direct reflection of your condition. You are curious and is willing to try the app.

1. You just landed on the landing page. You realized that you haven't set your profile. You want to fill in your profile according to the scenario. How would you do that?
2. Next, you would like to also check the app settings and activate the option that would protect your eye from the screen ray. How would you do that
3. You want to see your energy level. How would you do that?
4. You don't like your condition and want to set another plan. How would you do that?
5. You want more energy. For this particular goal, you would want to have a full 8 hours of sleep, and you want to wake up by 8 o'clock in the morning. You also want this goal to apply every Wednesday and Saturday. How would you do that?
6. To support your new goal, you want to put a limit to your social media use. You would want to go and set your limit. How would you do that?
7. You see that you should limit your YouTube use more. You decide to limit the use to everyday. How would you do that?

Now, you are to assume that you have been using this application for at least a week.

8. You are curious to see your result so far for the week. How would you do that?
9. You remember that on November 3rd, you had a great rest. You want to check the result of that particular day. How would you do that?
10. You are done exploring the app. You would like to go back to the initial landing page. How would you do that?

Observer Notes

Session	Participant information	What they did well / what they like	What they have difficulties on & recommendations	Expert comments
1	22 years old, male, China Less than 1 hour daily (on social	Noticed the setting button directly and easily used the text fields and settings Utilized the taskbar	In the goals section, the participant left the sleep target minute empty as he thought that leaving it empty means 0 minutes.	Avoid using words that appear within the interface Tasks that are realistic not feature

	<p>media)</p> <p>Never have difficulty sleeping at night</p>	<p>on the bottom of the screen to do navigate through the application</p> <p>Goals feature is really nice as it gives out a lot of information</p> <p>The app would be useful for users</p>	<p>The task about the avatar is quite confusing as the participant did not know what the avatar is for. (Knows the task, but does not know what information it gives or what it is for)</p>	<p>based</p> <p>Let the participant go through the app on their own</p>
2	<p>20 years old, male, Canada</p> <p>Around 4-5 hours daily on social media</p> <p>Pretty often (having difficulty sleeping at night)</p>	<p>Navigation bar is well recognized and used.</p> <p>Used and filled in the hours and minutes well and completed it without any difficulty when setting up a goal.</p> <p>Clarity: % (Thinks that the prototype is quite clear based on the tasks given)</p>	<p>Key Task 1: Clicked the “don't forget to setup your profile” which is unclickable (did not notice the settings button)</p> <p>For the testing, some things are quite leading the participant.</p> <p>Can be improved by having the participant have control and interact with the prototype.</p>	<p>Improvements: Ask for consent before conducting the research.</p> <p>There was a fair amount of leading the participation.</p> <p>Need to be consistent in the font, colors, and positioning within the application</p> <p>In the goals screen, the A.M checkbox might be mistaken for the P.M checkbox</p>
3	<p>20 years old, Female, China</p> <p>2-3 hours of social media daily</p>	<p>The color scheme, consistent design. Aesthetically pleasing.</p> <p>Useful idea + execution</p>	<p>Had difficulty accessing the account settings - clicked avatar.</p> <p>Didn't know how to restrict apps for every day of the week.</p>	<p>Give the participant more control, less leading the participant</p> <p>-more info about the avatar status - what is it?</p>

	Almost have difficulty sleeping everyday		Confusion between the distinction between the goals and app restriction- whats the difference?	<p>- what happens if someone checks both AM and PM box? Need radio boxes instead of checkboxes.</p> <ul style="list-style-type: none"> - Don't say avatar status, instead say "you want to check your energy level" - Include a continuation scenario "now assume that you have used the app for a whole week" before performing task (8)
4	<p>22 years old, female, China</p> <p>6 hours of social media daily</p> <p>Never have any difficulties sleeping at</p>	Participant liked that the interface looks very pretty and the avatar looks very cute	<p>Took quite a long time to identify the avatar status page.</p> <p>When going into the restrict apps, participants are confused if the default includes weekends or not, as there is the option that confuses the user.</p>	No experts for this session

	night		Settings button usually depicts language, privacy settings, etc. This leads the user to go click on the avatar instead of settings when they want to edit their profile.	
5	TA Session	<p>Able to navigate through the navigation bar on the bottom of the application well</p> <p>Managed to identify avatars and alter profiles and goals</p> <p>Liked the gamification of the app, especially the calendar which gave him a very clear immediate picture of which days he slept well on. The calendar used his avatar and he liked that.</p>	<p>Settings button did not work during the testing</p> <p>Did not really encountered any difficulty</p>	<p>TA Session</p> <p>More Teamwork from the group</p> <ul style="list-style-type: none"> - If the facilitator is stuck, the others should chime in <p>Whoever is facilitating should know the ins-and-outs of the app</p> <p>Figma was not working very well during this session so it was quite time consuming</p> <ul style="list-style-type: none"> - The avatar image not appearing on the Avatar page - Was not able to fill in the "Sleep

				<p>Target” or “Wake Up By” stuff in the Set Goal page</p> <p>Do not interact too much with the user, try to stay silent in order to catch any areas of improvement for our app</p>
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Post-Study Survey

1. What are the things that you liked or disliked from this prototype?
2. On a scale of 1-5, how would you rate this app’s functionality?
3. How do you feel after using the app?
4. Anything else you want to add in relation to the prototype/testings?

Checklist

- After opening the prototype, make sure to do these steps
 - Options > Fit to screen (Check)
 - Options > Disable default keyboard navigation (Check)
 - Options > Show hotspot hints on click (Uncheck)
 - Options > Show Figma UI (Uncheck)
- Ensure the user does not have certain browser extensions enabled, such as ad blockers, which could prevent images from being loaded in the presentation view (some image blockers include: Ghostery, Video Downloader PLUS, iDM Integration Extension, Honey).

Appendix 1

Assignment Attribution

DIGBA, Ruemu (Ray):

ALVAREZ, Victor:

WANG, Siyi:

WELONG, Stefanus Albert: Change log, update usability study instruments, update prototype according to change log

HUANG, Sheraveen:

NASIR, Ayesha: