

A User-Centred Design Approach to Data Visualizations

Participant Workbook

Phase I: Research

User interview questions

1. Tell me a little about you (e.g. occupation, education, family, hobbies, etc.).
2. **What** aspect(s) of a healthy lifestyle would you like to monitor?
3. **Why** is this important to you?
4. **When** would you use this information?
5. **Where** would you use this information?
6. Do you monitor this information currently (digitally or non-digitally)? If so, **how** do you monitor this information? What do you like and dislike about it? Do you encounter any challenges?

User interview notes

1. My name is Yemisi Adewusi, I'm a mother of 1 and I work in a wine store as the sales rep and marketer, I graduated 2019 studied marketing and my hobbies are movies, reading and Hiking I have a dog named Rocky..
- 2 I will like to monitor my daily walk routine with my dog and my sleep time to have a work balance life and also to improve me health wise and my blood pressure if possible.
- 3 It is important as it will help me have a balance in my working hours and sleep hours and it will guide me and notify me when I haven't gotten enough walk or sleep for the day.
- 4 I will use it daily mostly in the morning when take my dog to walk
- 5 I will like to use it on my laptop and my mobile phone when I go for a walk
- 6 I currently have my phone alarm that notify me daily and this sometimes is not helpful because whenever I am away from home and turn off the alarm i forget to go on the walk after arriving home.

User interview synthesis

1. Who is the user?

Yemisi Adewusi, she's a sales rep and a marketer who'd like to monitor her dog walk daily

2. Where should our product fit in their work or life?

Daily walkout with her dog and monitor her blood pressure

3. What problems should our product solve?

Daily reminder to go on a walk with the dog and keep track of her blood pressure and help with her sleep time.

4. When and how should our product be used?

Daily and on her mobile device or laptop

5. What features are important to our user?

Alarm, date, reminder, sleep reminder.

6. How should our product look and behave?

The user interface should be visually appealing, user-friendly and be easy accessible for daily usage

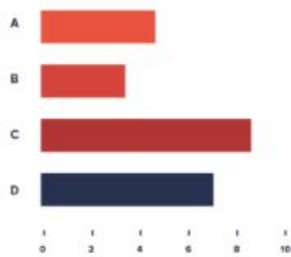
Phase II: Wireframe

Types of charts by function

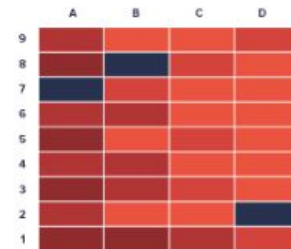
<https://datavizproject.com/>

Make comparisons

Horizontal/vertical bar Bullet

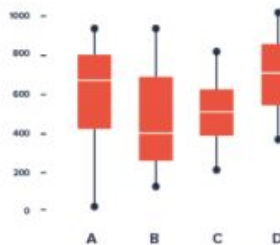


Heatmap

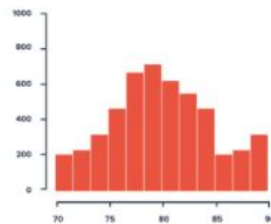


See distributions

Box and whisker

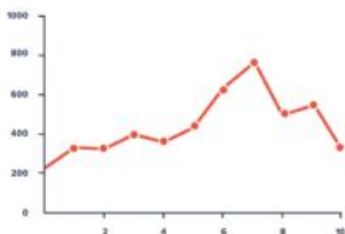


Histogram

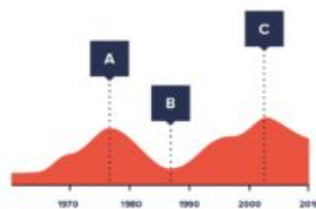


Spot trends over time

Line

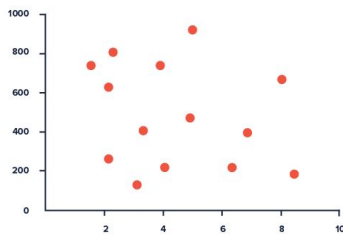


Area

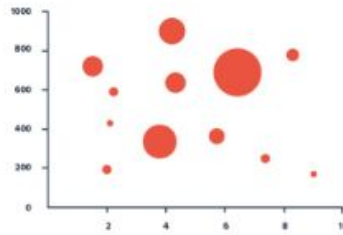


Understand relationships

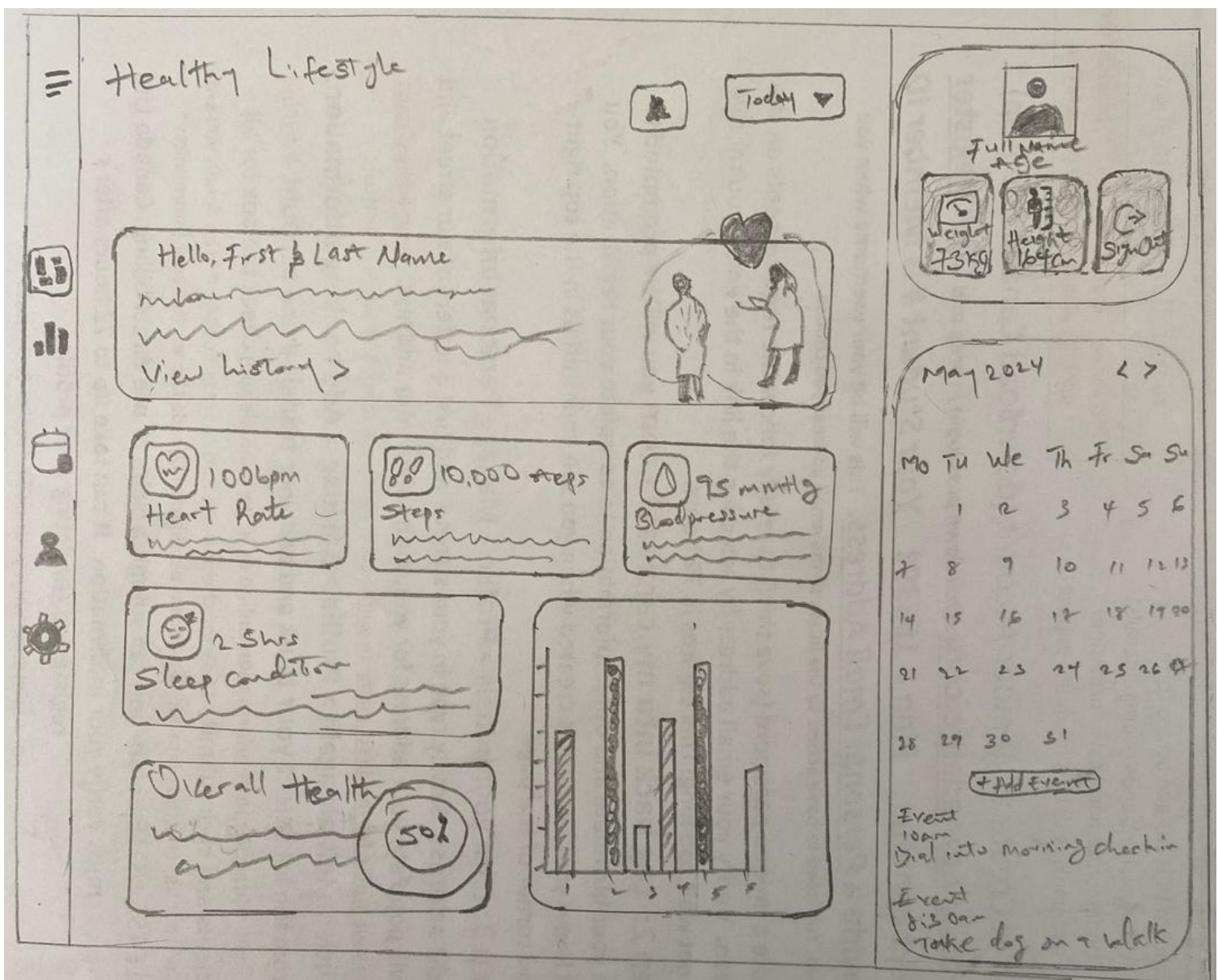
Scatterplot



Bubble



Use the space below to draw your wireframe, or use other sheets of paper provided.



User feedback

<p>(+) Likes</p> <ul style="list-style-type: none">* The fact that heart rate is there capivate* I can set a target for the total steps I will like to walk daily*A reminder to take to take my on a walk is really a great idea*Calculation and letting me know I need more sleep is really cool and I love it.	<p>(-) Dislikes</p> <ul style="list-style-type: none">*User didn't like the grey colour alone she'd like it to be more colourful*User didn't like the having her name instead wants her nickname to be displayed
<p>(?) Questions</p> <p>Can the dashboard be used for more than one person? She wants one for her husband</p>	<p>(!) Suggestions</p> <ul style="list-style-type: none">* User will like to have a stopwatch included if possible* User will like to have it more with colours*User will like to have some health qoutes and advices display daily on the dashboard

Phase III: Prototype

Usability Test Template

Describe the task(s) you wish to test:

Reflect on your user's goals and key activities. For example, a goal of the user may be to do more bench presses every week. Can they use your dashboard to:

1. See if they are improving each week;
2. See how much they are improving each week;
3. See how close they are to achieving their goal.

The User would need to create a daily goal and keep track of it daily, for example the amount of steps she needs to take weekly which is breakdown into daily steps will help her to reach the target.

1. Sign into the dashboard and setup her walking time and how many Mins or ours she wants daily
2. On a default the dashboard has been created to task user to take 10,000 steps, with this user can be sure how many steps taking and how many more needed to be taken
3. Also, I will like to test the sleeping activity to be sure it's accurate. User will need to input the numbers of hours she will like to sleep daily, and if user wakes up early the dashboard will record the numbers of hours or minutes left for user to sleep, and if it's less than 3hours, it will tell user to take a nap later in the day.
4. Daily Heart rate monitor. User can use the heart rate monitor to track the heart functionality and how active the user has been

Read this introductory script to your test participant:

Hello {Name of the participant}, thank you for coming. My name is {your name} and I'm the designer of this health and wellness dashboard. I'm going to walk you through the session today.

Before we'll start I have some information for you.

We're currently testing this product to learn as much as we can about the way people use it. Every product is intended to work in a certain way by its creators, but as you know – the reality might be quite different. The goal of this research is to get us as close to the reality as possible.

The session will take about an hour.

Please remember, during the next hour, that we're testing this product, and not you. Don't worry at all about mistakes. If they happen, it's the fault of the product. Finding about it is absolutely fantastic and gets us closer to creating a great product.

During the whole test, please try to think out loud. Share anything that's in your head. Tell me what you are looking at on the screen, what your thoughts are, what you like and what don't you like, et cetera. We want to learn about your honest reactions to this health and wellness dashboard.

Do you have any questions before we begin?

Source: <https://www.uxpin.com/usability-test-kit>

Phase III: Prototype

Usability test questions:

Walk me through how you would use this dashboard to **[describe task]**.

Note: If you have more than one task you wish to test, test one task at a time.

Probes:

- Why did you look there?
- What design element gave you that answer?
- How did you decide to do that?

Notes:

* The User Yemisi Adewusi can sign in and sign out of the dashboard, once signed in on the right side of the dashboard the user can set reminder for events on a day to day activities on the lower part of the calender on the right, with this reminder will pop up, when the event time clocks

* On the center of the dashboard is the step tracker, which can be used to track the steps taking daily and the default steps set is 10,000 steps, which can be adjusted if the user wants more steps daily, which this the goal of more steps can be achieved daily

* To access or adjust the default setting the setting icon is on the left side of the dashboard and also the user can get to change some task on the dashboard menu on the left.

Usability Test Analysis

Critical issues:

Issues that prevented users from completing the task, and caused significant levels of frustration.

User wants a running time on the dashboard, that can act as a stop watch and clock as well
User see this as a critical issue that needs to be addressed

The colour of the dashboard seems to be an issue for the user as well, as she wants it to look more attractive for her usage.

Major issues:

Issues that prevented users from completing the task properly/accurately, and caused moderate levels of frustration.

The histogram got criticized as it doesn't have a title or label to show what information it's passing to the user, she said it's there and not telling her what measure is being taken on daily bases to show the the information.

Minor issues:

Users were able to complete the task properly, but with some frustration and confusion.

The left icons, menu, settings, profile need to have a tag name to be able to know their functions for easy accessibility.

Also the User wants more measures to tell her monthly health progress on her sleep and walking her dog, which the information will be combined from the daily record the dashboard gets from the usage.

Your design recommendations:

More indicators to help the user on other Healthy life, like water intake, quantity of meals daily, Time she consumed meal

Also tracker to help her watch her weight and know how many calories she had burnt so far during the week.

Daily health qoutes to motivate her to keep pushing to achieve the goals set for the week, month or the year.

Timer and Alarm notifications to get her up and going on her daily tasks.