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Evaluation - Usability Test

Data Collection - Usability Test

What is Usability Testing?

- Usability testing is the means of assessing the usability of an user interface, by seeing how the user will be utilising the actual interface through their interactions.

- Assessing the user through observations whilst they are utilising the user interface.

  - Observing the impressions of the user, whether they are annoyed, happy or confused from a particular area within the user interface.

  - Meaning, why assess the user's overall performance whist they interact with the interface.

- This form of testing is usually performed in an controlled environment.

Why perform Usability Testing?

- It allows us to gain feedback from their user in order to improve the user interface.

  - This is to ensure usability.

- It allows to determine the key highlights and lowlights from the customer, so that we can determine potential flaws from the user interface.

  - By doing this, it allows us to gain relevant scope about the user's experience.

How is Usability Testing Performed?

- For each team member at least 2 or 3 participants will be conducting the usability test.

- During the test the user will interact with the design, from which the supervisor will take relevant notes of the user's behaviour and performance when interacting with a certain functionality of the software solution.

- An interview will be conducted during the test discussing about their current impressions in order to gain qualitative feedback.

- Once the user has completed the set of tasks, he/she will then complete a questionnaire provided using Google Forms to gain quantitative data, and an question and answer session will take place to gain any remaining feedback from the customer.

- Results will then be compared by the team members, once all members agree we will then proceed to the data analysis phase.

Data Collected during Observation

Assessed by 3 Users.

Two in the same day.

One in a different day.

Details about the users:

- User 1 is a novice user, which has no clue about the system.

- User 2 is an intermediate user, which is a fast learner.

- User 3 is an experienced user, who has used such a system before.

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User 1
● Completed the test under 5 minutes.

Test No.	Test Description	Users Performance	Any Notes
1	Browse products	Annoyed -> 4 out 10. Confused -> 6 out of 10. Made few errors.	Though the user was able to browse the item. User 1 was unable to reach the main menu due to the poor positioning of the home icon. Filters was difficult for the user to use, due to limitations of Miro.
2	Add Products to basket	Annoyed -> 2 out of 10. Confused -> 4 out of 10. Happy -> 6 out of 10. Made few errors.	User was confused when managing items in basket. When adding products to basket there was popups, in which the user was happy with. Noted that there was no popups to inform the user.
3	View recommended products	Made at least 10 or more errors. Confused -> 4 out of 10. Annoyed 6 out of 10.	User was confused when browsing recommended products since they were transitioned to different menus which they were unaware of. User stated it would be even better if it does not involve them to transition to different menus, and they would like to see recommended products when browsing products in general.
4	Visit Dietary Features	Confused 10 out of 10. Annoyed 6 out of 10. Made several errors when accessing macros,	Was unaware of the details shown on screen. Required assistance from the supervisor. User 1 has stated that there was a lack of labels.

		and micronutrients.	
5	Set Preferences	Happy - 10 out of 10.	Made little or no errors. Enjoyed the user interface for the preferences, as it was centred and allowed them to focus.

Additional Notes

- 6 clicks when browsing through menu.

- Finds the user interface inconvenient as it involves them to go to the main menu each time when accessing another feature.

- Lack of labelling when accessing health summary, macros and micronutrients, though there was some icons which have confused the user.

- User 1, was also confused with interpreting the information on screen for macros and health summary. (Involved the user to seek clarification of information).

- Would be even better if there was health preferences.

- It has involved them to scan through the whole screen when interacting with the interface.

User 2
- Completed the test under 6 minutes.

Test No.	Test Description	Users Performance	Any Notes
1	Browse products	User was pleased. Annoyed -> 2 out of 10.	User 2 was pleased with that when they add an item to the basket they receive a popup informing them that they have added an item to basket. Though user is not annoyed that he/she needs to go back to the main menu each time that they access another features.
2	Add Products to basket	User was pleased. Confusion 6 out of 10.	User 2 finds it easy to add an item to basket, and that they are able to manage items in their basket. Although they were confused with the information that was represented in basket, as it is represented as cards, rather than horizontally showing the items in one side, and basket summary on the other side.
3	View recommended	Confusion 6 out 10.	Although the user was pleased that they

	products	Annoyed 5 out of 10.	were able to see their recommended products, there is too much information cluttered for product. They would have preferred to see it when browsing all products, rather than returning back to main menu to see this.
4	Visit Dietary Features	Confused 10 out of 10.	Required assistance when accessing macros and micronutrients.
		Annoyed 8 out of 10.	Information was too difficult to interpret by User 2.
			User 2 has found the UI layout very difficult for the Macros and Micronutrients.
5	Set Preferences	Happy/Satisfied 7 out of 10.	Although the user like the UI layout of preferences since it was centred.
		Annoyed 3 out of 10.	The user was annoyed because it involves the setting preferences again when using the system again.

Additional Notes

- User 2 finds navigating back to the main menu difficult as it provides inconvenience, they have stated that a short-cut, or a hamburger would be better when transitioning between menus.

- User 2 has also noted from the overall system, information is cluttered everywhere making it difficult to navigate.

- Lack of labels near icons when browsing at dietary features.

- During the early tests user was confident, though when executing Test 4, the user's confidence level falls and stress levels starts to rise along with confusion.

- User has stated that, rather than manually setting the preferences each time we use the system, we can just sync our preferences to our accounts, whether for a family or individual use.

User 3

- Completed the test under 13 minutes.

Test No.	Test Description	Users Performance	Any Notes
1	Browse products	Made at least few errors when accessing menu in main menu. Confused 5 out of 10. Annoyed 2 out of 10.	Couldn't differentiate between both menus regarding products. Five second delay when browsing through items. Confused with the information shown on the products. There was confusion with the icons.
2	Add Products to basket	Annoyed 2 out of 10. Happy 6 out of 10. Confused 5 out of 10.	Made little or no errors. For filtering through products, it has taken the user at least 5 seconds when locating the filter button. User 3, was not very happy with the fact that it involves them using the filter to browse through product categories. Would be better if there was a navigation bar or a drop down list accompanied with a search bar when browsing through different categories a products. Hamburger menu would improve navigation.
3	View recommended products	Annoyed 8 out of 10. Confused 4 out of 10.	Required assistance when navigating to the Recommended products menu. Although User 3 was able to see recommended products that conform to his/her dietary needs, the user would have preferred seeing it in the main Products menu.
4	Visit Dietary Features	Made more than 20	User 3 was confused with the information provided by the Macros,

		errors.	Health summary and micronutrients.
		Annoyed 8 out of 10.	Too much information shown on screen.
		Confused 10 out of 10.	It was complex to use as stated by User 3.
5	Set Preferences	Happy 10 out of 10.	User 3 was pleased, as they were able to enable/disable settings using the toggle switch buttons as provided, and setting dietary preferences. Made little or no mistakes.

Additional Notes

See **Any Notes** for each test as shown in the table above**.**

Overall Notes taken during Observation

To Summarise:

- An average of five errors were made when accessing menu.

- The dietary features provided by the system was complex.

- Too much information was cluttered on screen.

- A search bar or navigation bar would have been better when navigating to specific shopping categories.

- Users have also stated that it involves them returning to main menu when accessing another feature, thus causing inconvenience to the user.

- Browsing specific brands should have been included in preferences.

Data Analysis

Data Analysed from Observations

- 30% were not pleased when browsing through the products due to the UI layout of the products menu.
- Majority of users have complained that filters would be even better if a search bar was included, and hamburger menu was included to improve navigation through products.
- Though 50% found the UI layout when managing their items in basket difficult. Where the majority were pleased when adding products to basket.
- Around 60% were annoyed with reviewing recommended products, as it has involved them to return to the main menu.
- Where 50% of users where confused with the filters provided by the recommended products.
- More than 90% of users have complained that the dietary features of the system was complex to use. Involved seeking assistance.
- As observed during the usability test, around 80% of users were stressed due to a large number of information being shown on screen.
- 90% of users were pleased with the preferences menu as the UI was centered, which has allowed the user to focus. The majority were pleased that they were able to easily enable or disable settings through toggle switch buttons.
- Though 10% have noted that, for each session that they use the diet awareness system, it will involve them to manually set their dietary preferences, and would like to simply browse through the shop rather than spending 5 minutes or more when setting their dietary preferences.

All Graphs

I find the main menu very easy to access other options from the system.
3 responses
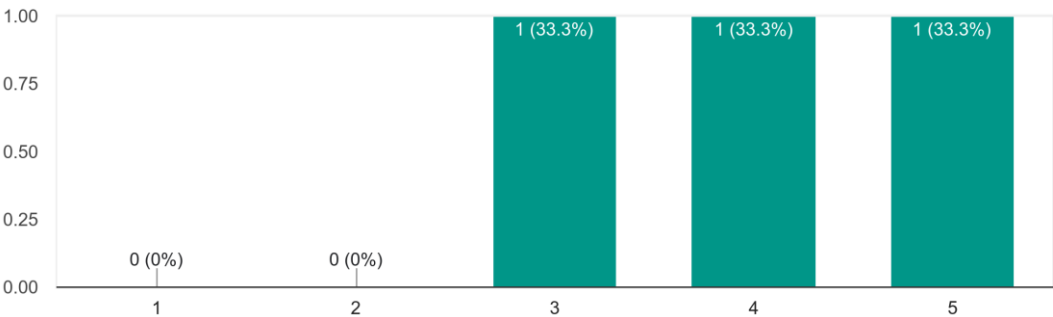
The majority agree that the main menu provides ease of use when accessing other features from the diet awareness system. The image overlay button provides a label for guiding the user to those features, thus providing concise information.

I am able to browse products with ease.

3 responses
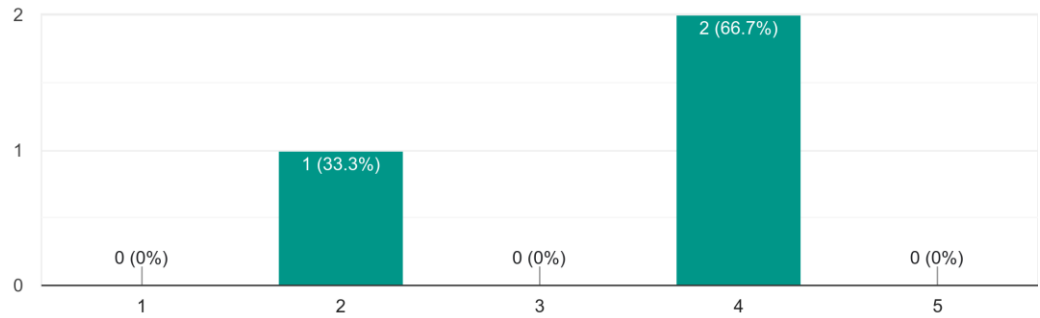
Around 66.7% of participants have stated that they are able to browse through products, and the information provided onscreen is concise. As stated in the knowledge elicitation report, information must be concise such that it does not overload the customer so that they make informative decisions.

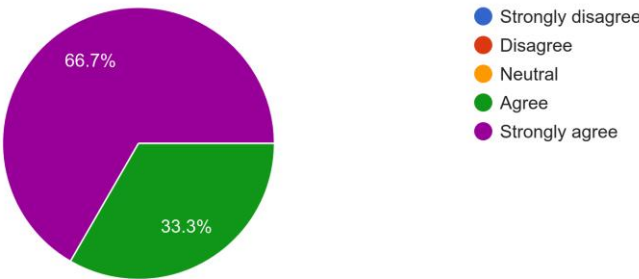I am able to find what I am looking for from filters.

3 responses
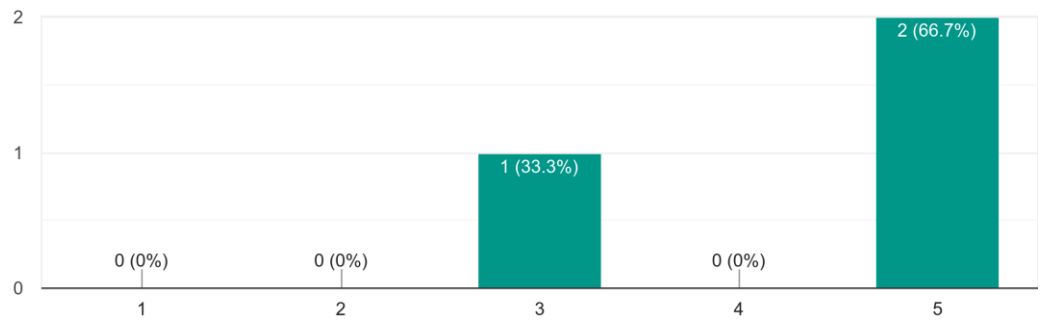
66.7% Strongly agree with this, as it saves 5.9% of users from acquiring support from a shopping assistant as they may not recommend products that satisfy the user's needs or may cause the customer to turn away. This significantly reduces the need of customers manually browsing through all aisles from 52.9% of the time.
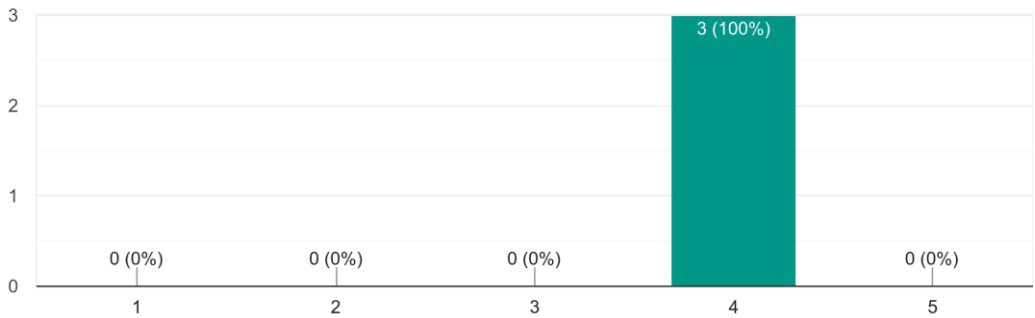
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I am able to set preferences based on dietary needs
3 responses

- Strongly disagree
- Disagree
- Neutral
- Agree
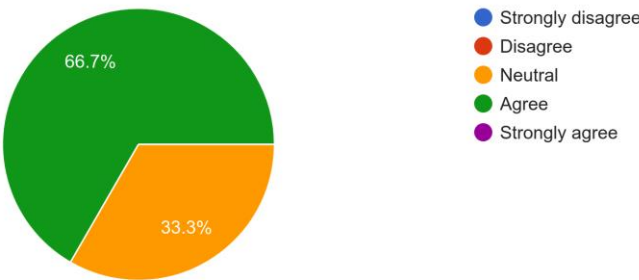- Strongly agree

66.7%

33.3%

I am able to see all products relevant to my preferences set through Recommended Products section
3 responses

I find the settings option very easy to navigate through and use
3 responses

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

66.7%

33.3%

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I find information regarding macro-nutrients, calorie, food tracking very useful.
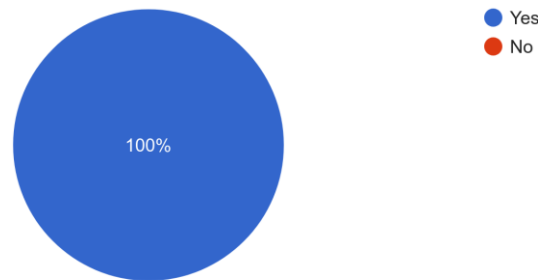3 responses
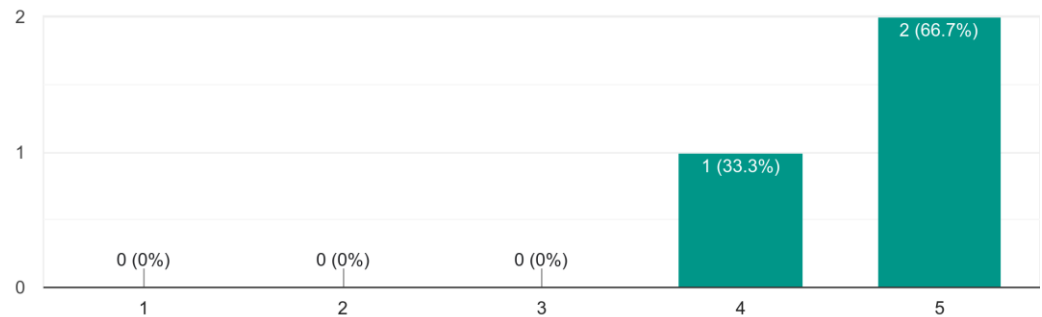
Despite 66.7% have found the dietary features quite helpful during the observation tests, many have found the information to be complex, and UI layout confusing resulting to several errors being made when accessing the macro-nutrients, calories, and food-tracking.
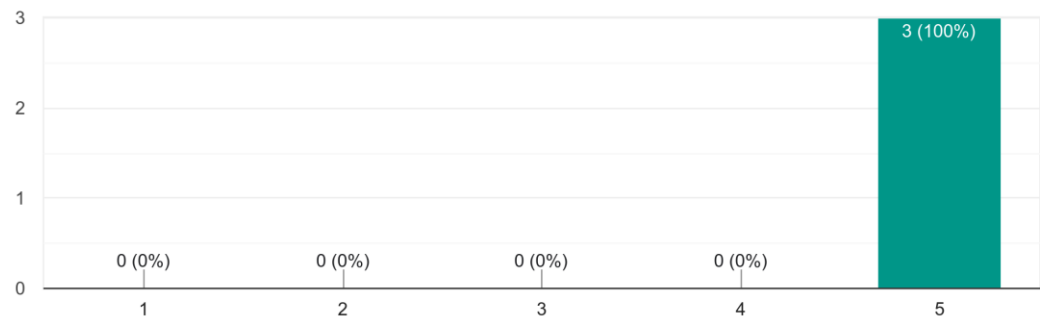
I am able to remove/add an item to basket
3 responses

- Yes
- No

100%

Notifications or Alerts keeps me informed when I shop.
3 responses

All participants have agreed that notifications and alerts allows the customer to gain instant feedback from the system, in which has improved the users decision-making as they are aware of the food products that contain sources of allergies in order to adhere to their dietary preferences.

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It has also been noted that participants that are a fast-learner and have used the system before were not very please with the dietary features that were provided by the diet awareness system.