Design Workbook

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| **Team Name:** | Design Thinkers |
| **Project Topic:** | How might we better inform the user of sustainable energy opportunities that they could be taking advantage of? |
| **Student Name:** | Braydan Newman |
| **Student ID:** | 14062640 |

**Summary of the Design Thinking Processes:**

* Brainstorm
* Heat map
* Three empathy maps
* Story Share and Capture

Sustainability and health and well-being were the focus for discussion and brainstorm by the team. Each team member then decided on 5 topic areas to focus on. To decide our target audience three empathy maps were created based on people’s life stages. The three final maps were grouped as elderly, family, singles. During the decision-making stage a heat map was used to determine selection of topics. After the vote had taken place, the team had realised the topic was too narrow and the team’s outcome was decided as ‘sustainable energy’. Once the topic was determined secondary research was completed to highlight key elements that the user was looking for. Once the team had created a reliable plan, interviews of possible users were conducted, to further our understanding of user compatibility and needs. Main points and stories were captured and laid out in a story share and capture by each team member to broaden everyone's understanding of user’s needs. The group made a final decision to not use the how and why ladder as discussion had been exhausted using prior methods.

**Define:**

* Brainswarming
* How Might We, Grouping, Heat map,
* POV statement

Methods that were used by our team to inform users of information included a point of view statement, brainswarming and how might we question in a brainstorm then a heat map to determine the final question. Point of view statements were determined individually for each of our users then combined to create an average user. Brainsworming was then used to connect user needs and set up an understanding and thinking process for how might we questions.

The conditions and process used by the team to create how might we questions was to place sticky notes in a brainswarming layout and enter information based on previous discussions whilst remaining silent. The information based on each discussion that was written on the sticky notes was to be related back to empathy maps, then shared with the group. Once this was completed and similar questions were combined a heat map was created to vote for each team members favorite question then a vote was conducted for the final question.

The composite character profile and point of view statement was determined to be;

“The household needs to receive alternative incentives beyond financial; additionally, it needs a solution to be flexible with a busy life and to consider the life cycle of the item because people invest in sustainable energy solutions for the financial incentives rather than the environmental benefits.”.

**Ideation:**

* Six thinking hats
* Brainswarming
* Select and describe section

Ideation methods that were used include six thinking hats, brainswarming, crazy eights and selection. Six thinking hats allowed every individual from the group to see the ideas from a different perspective to determine possible deterrents and problems for the use to create a better product. It allowed discussion of possible problems in a way that allowed it to be clear and free of conflict. Brainsworming ensured that every individual in the group included ideas that contributed to the product. Brainswarming included ideas to be placed on a board in silence, then allowed for a discussion to further the improvement for the user and understanding what the user was looking for. Crazy eights began with dividing a piece of paper in eight squares and allowing each team member 40 seconds per sketch. The sketches were completed anonymously and then presented to the group. Once presented to the group it allowed for discussion of each idea to identify what might have been missed and how each can be improved or combined to create an ideal product. Once all ideas had been presented to the group a final product was decided on.

**Prototype and Test (Iteration 1)**

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During the creation of the first prototype each section was individually constructed to highlight individual ideas and possible outcomes. This allowed for a combined second protype that included the most useful ideas from the first. Once the prototype was completed a person was picked to test the prototype. During the test a script was followed to allow consistency between subjects. During the test the subjects were given limited knowledge on how the product was used. This allowed us to gage how smoothy and efficiently the layout worked to make further improvements. The subjects were then to guess what space this app was produced to cover.

Once the subjects and team members had produced their final feedback and evaluation two charts were produced to represent this. Figure 1 shows team members feedback and evaluation from prototype 1 and Figure 2 shows the clients feedback and evaluations.

A picture containing table

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Figure . Team Member Feedback and Evaluation

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Figure . Test Subject Feedback

**Prototype and Test (Iteration 2)**

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* **Collected everyone’s layouts of their sections and unified them to one theme**
* **Decreased the amount of text**
* **Re-order how the tutorial would work and made to before the use needed to login**
* **Made the app more pleasing to look at**
* **Testing was done by 7 people between the 5 members and the insights**
* **My tester had very few issues navigating the app and was overall the general layout, however she thought some UI elements were buttons when this wasn’t the case**
* **The team found that the creating account page was confusing some people and while entering details about the household it was found that the wording could be better**

**Prototype and Test (Iteration 3)**

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* **This prototype brought a few quality of life improvements, with buttons being made larger and easier to use and cleaner UI with less text and more visual ques**
* **While creating this prototype we really thought about the viability of the app and the ability to be used for quite a while after download, with not just discovery in discovery tap but also suggestions on what the app recommends and could help with targeting solutions at users that could work well in the home**
* **The Logo was changes as the green recycle logo didn’t display exactly what the app was trying to convey, changed to a combination of the recycle and a lightning bolt to display the primary focus is on green energy this had the coincidence of making an “S” shape, which works well with the name “Green Surge”**
* **Table

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**Final Prototype**

**Appendix A: Team meeting Minutes**

**Appendix: Teamwork Contribution Report Teamwork Contribution Report Template**

**My contributions for each design thinking process:**

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| **Project Work** | **Contributions** |
| Empathy | 21-22/08/2021 conduct 2 interviews with potential users |
| Define | 29/08/2021 Contributed to team discussion about refining the question to a single sentence |
| Ideation | 16/08/2021 Suggested 5 ideas in brainstorm meeting |
| Prototyping | 15/09/2021 Uploaded my initial prototype design for testing |
| Testing | 15/09/2021, 22/9/2021, 1/10/2021 Conducted testing for all the prototypes |
| Team management and information sharing | 3/09/2021 Contributed in collating all the secondary research |

**My contributions for each team meeting:**

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| **Meeting Date** | **Role in Meeting** | **Contributions** |
| 11/08/2021 | Participate | * Joined in on discussions and voiced opinions about the following: Name, Rules, Communication, and meeting time * Generated many topic ideas for problems while also branching of on others’ ideas |
| 16/08/21 |  |  |
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| **No.** | **Plan** | **Objectives** |
| 1 | Week 3 - Mid-week via Discord | Establish Team rules, meeting, share, communication and conflict management  Select Sustainability or Health/Well-Being  Brainstorm Topic Area of Focus |
| 2 | Week 4 - Start-week via Discord | Discuss and Select Topic Areas  Make Secondary Research Plan |
| 3 | Week 4 - Mid-week via Discord | Discuss Secondary Research  Plan Interviews and conduct |
| 4 | Week 5 - Mid-week via Discord | Interpretation, story sharing and empathy maps, Point-of-views |
| 5 | Week 5 - End-week via Discord | How might we  Write project plan |
| 6 | Week 6 - Mid-week via Discord | Review and Submit |

* 06 Meeting –Discuss requirements for Design Solution Assignment 2
* 07Meeting –Design a solution, then Describe and Define solution
* Testing for Prototype 1.0(In Practical)
* 08 Meeting –Evaluate feedback for Prototype 1.0and Plan for Prototype 2.0
* Testing for Prototype 2.0 (In Practical)
* 09 Meeting –Evaluate feedbackfor Prototype 2.0 and Plan for Prototype 3.0
* Testing for Prototype3.0 –testing completed by individuals as able
* 10 Meeting –Evaluate feedback for Prototype 3.0 and Plan for Final Prototype
* Completed Changes for Final Prototype