HiFi User Study Protocol

1. Introduction
   a. Our app tries to visualize the mental load distribution within a household and tries to promote a more balanced distribution. The app is designed to be used by all members of a household and users can interact with each other. Users can track their own mental state and help the ones that feel overwhelmed.
   b. You are user "Theo" (red) which already has tasks and moods over time in order to have data for visualisation. There are also other users existing with tasks and moods associated.
2. Open app and find tutorial button in settings and start tutorial
3. Finish tutorial
   a. (tutorial includes: short welcome, current home screen, mood with flower, tree with blossoms explaining blossom color/size/category
       i. Welcome to our app, we're so glad you're here:)\nIt's time to look after your mental health!
       ii. What you can see here is our home screen: We'll guide you through the different options you have here.
       iii. First you can set your mental state here by clicking on the flower and choosing the corresponding emoji: [flower shown below in the tutorial dialog]
       iv. The tree shows all the completed tasks of the last thirty days.
       v. There is a blossom for each user in each category. There are 6 categories shown by the six branches in the tree. The bigger a blossom is, the more tasks belong to a user in this category.
       vi. Clicking on a blossom shows the task distribution of the assigned and completed as well as uncompleted in this category in different charts (A) or in a chart and in a list of tasks (B)
       vii. Then there are two other screens you can navigate to on this home screen via the bottom navigation bar.
       viii. [navigate to diagram screen] First diagrams where you have an overview over the task distributions.
       ix. [navigate back to home screen and further to cards screen] Here on the Cards screen, you can see the task of your household represented as cards. On the Top you see four categories [User can read the category names]
       x. Overview allows you to see all tasks you've created, can create new ones and edit them
       xi. Swipe allows you to pick your favorites by swiping to the left and dislike by swiping to the right
       xii. On Preferences you can see which Tasks you liked and disliked
       xiii. On Group you can see who has already chosen their favorites [and Task-Sharing?]

4. Familiarize yourself with the app
5. Fulfill below task for each A/B and different amount of tasks
   a. Make tasks in a category more balanced via the dialog you get when clicking on a blossom in the tree

User fulfills 3 tasks with A/B Prototype with different amount of tasks in the tree (Task 1 has very few tasks; Task 3 has many tasks)
-> Within Subject Study

One should vary the order of the prototype that is shown first between the users. Since each of us is conducting two studies, we will do one study starting with prototype A and one study starting with prototype B.

Task assigned to users: Analyze the data obtained by clicking on the blossoms (i.e. Task distribution in a category), and offer trade such that task distribution is made more homogeneous in a category.

Task Log

Log time taken to fulfill task and note down mistakes/confusion for each task

Time Taken: Parametric, Two variables (only compare A vs B for each task separately), dependent -> Related Sample T test

Mistakes/Confusion: Codes and Categorization (get data on why worse/better(?))

App experience (User Questions)

Questions for User after each Task

1. Please fill out this questionnaire?

Once per Task:
Overall this task was?
○ 1 – Very Difficult
○ 2 – Difficult
○ 3 – Medium
○ 4 – Easy
○ 5 – Very Easy

Once per Prototype (after doing all tasks for one prototype):
I found the visualization unnecessarily complex
○ 1 – Strongly disagree
○ 2 – Disagree
○ 3 – Neither agree or disagree
○ 4 – Agree
○ 5 – Strongly agree

I thought the visualization was easy to use
○ 1 – Strongly disagree
○ 2 – Disagree
○ 3 – Neither agree or disagree
○ 4 – Agree
○ 5 – Strongly agree

I thought that this visualization works well in this use case
○ 1 – Strongly disagree
○ 2 – Disagree
○ 3 – Neither agree or disagree
○ 4 – Agree
○ 5 – Strongly agree

I thought the visualization did not help in this use case
○ 1 – Strongly disagree
○ 2 – Disagree
○ 3 – Neither agree or disagree
○ 4 – Agree

I would imagine that most people would learn to use this system very quickly
○ 1 – Strongly disagree
○ 2 – Disagree
○ 3 – Neither agree or disagree
○ 4 – Agree
○ 5 – Strongly agree

I found the system very cumbersome
○ 1 – Strongly disagree
○ 2 – Disagree
○ 3 – Neither agree or disagree
○ 4 – Agree
○ 5 – Strongly agree

I felt very confident in using the system
○ 1 – Strongly disagree
○ 2 – Disagree
○ 3 – Neither agree or disagree
○ 4 – Agree
○ 5 – Strongly agree

I needed to lean a lot of thing before I could get going with the system
○ 1 – Strongly disagree
○ 2 – Disagree
○ 3 – Neither agree or disagree
○ 4 – Agree
○ 5 – Strongly agree

(Questions in this color are based on System Usability Scale) -> evaluate with SUS Score
-> Questions only once per prototype

(Questions in this color are based on Single Ease Question) -> nice to have info (potential correlation?)

After fulfilling all tasks

Which visualization method did you like more? Why? (Text question) -> Evaluate by assigning Codes; Categorizing

Use this form to get user questions (can be opened by participant):
https://docs.google.com/forms/d/e/1FAIpQLScLWfTkxL02Ubsclzc1cr1gi3_icgBSit2mfObHoQtSHDfqSQ/viewform?usp=sharing

Use this form to note down time and errors (only filled out by test conductor):
https://docs.google.com/forms/d/e/1FAIpQLSd7LoLIdnzfs3sZIr1F1Jvm_SzToT9jyYcNM7wxoJiB_Vn69A/viewform