Heuristic Evaluation

Part I: Your Name

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Part II: Project Description

Routine reminder and planning application. Vocal interface

Part III: Evaluation Execution

In-person evaluation, question-answer simulated interaction with system using a flow of sentence written on paper.

Task performed:
1. simple task (start a routine, ex. meditation track, ex. training session)
2. moderate task (add a routine to your schedule)
   a. predefined
   b. custom
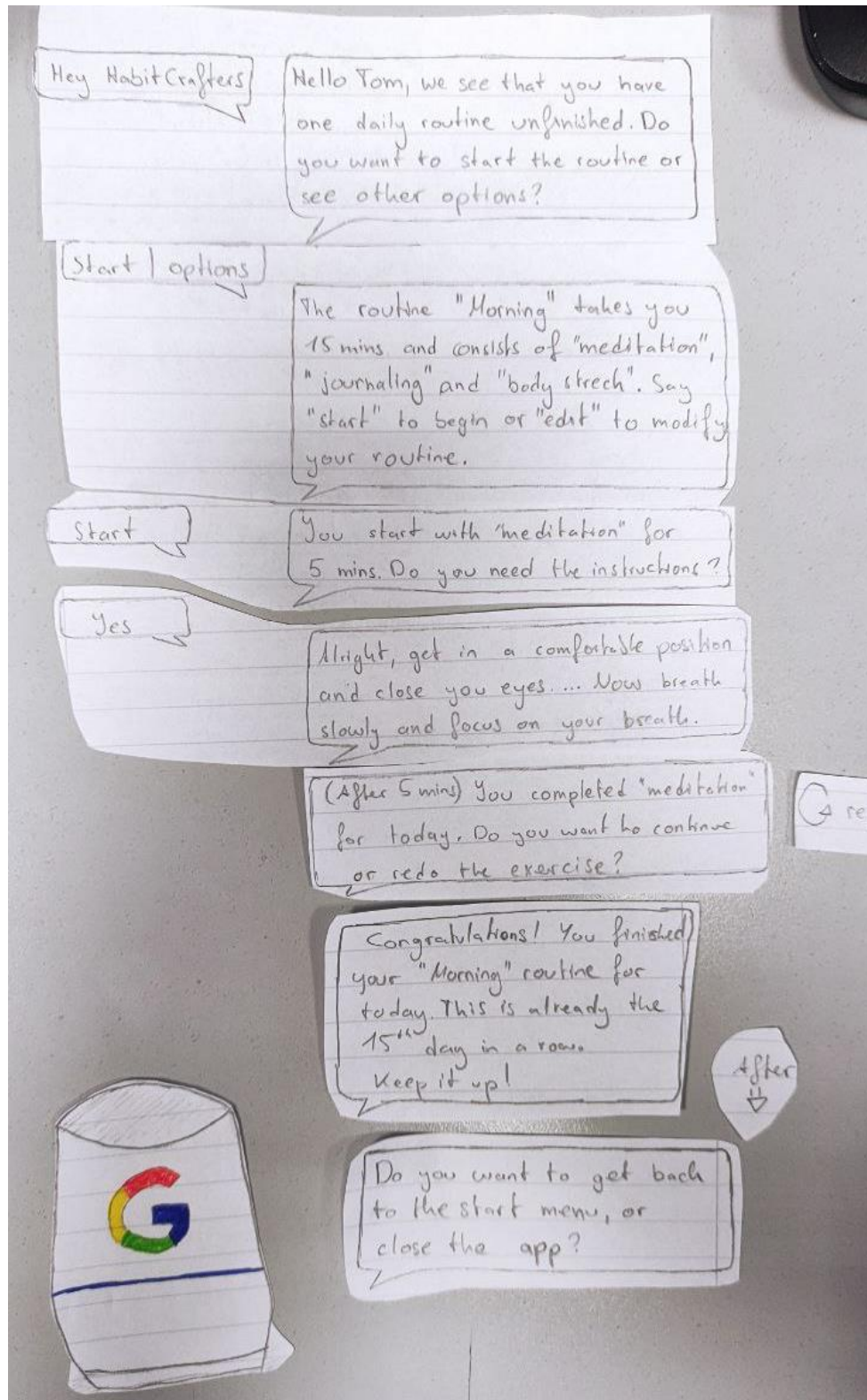3. complex task (ask to an expert to improve your plan)

Part IV: List of Violations

NOTATION:
Hi [Name of heuristic i] (Hj [Name of heuristic j]) means that a phrase violates mainly Hi but in a certain sense also Hj. In this case Hj doesn't appear on count of heuristic violations

Issue in next pages (TASK1→ISSUES_TASK1→TASK2→ISSUES_TASK2→…)

TASK 1

Hey Habit Crafters

Hello Tom, we see that you have one daily routine unfinished. Do you want to start the routine or see other options?

Start | options

The routine "Morning" takes you 15 mins and consists of "meditation", "journaling" and "body strech". Say "start" to begin or "edit" to modify your routine.

Start

You start with "meditation" for 5 mins. Do you need the instructions?

Yes

Alright, get in a comfortable position and close you eyes. .... Now breath slowly and focus on your breath.

(After 5 mins) You completed "meditation" for today. Do you want to continue or redo the exercise?

↺ re

Congratulations! You finished your "Morning" routine for today. This is already the 15th day in a row. Keep it up!

After
⇩

Do you want to get back to the start menu, or close the app?

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TASK 1 heuristic violations:

1. *H2* Match between system and the real world
   Where: menu (phrase 1) [task 1]
   What: instead of "see other options" can be used a more meaningful term like "modify routine planning"
   Why: "modify routine planning" or a more descriptive phrase can help the user understand what I can do in alternative to start a routine
   Severity: 1

2. *H3* User control and freedom *(H7* Flexibility and efficiency of use*)*
   Where: routine start (phrase 3) [task 1]
   What: the user can have more freedom by choosing which exercise to start with
   Why: the user may be prefer to start routine from the "exercise" he wants (H3), is also less time consuming since if he wants to do only 2nd he can do it without waiting the finish of 1st (H7)
   Severity: 3
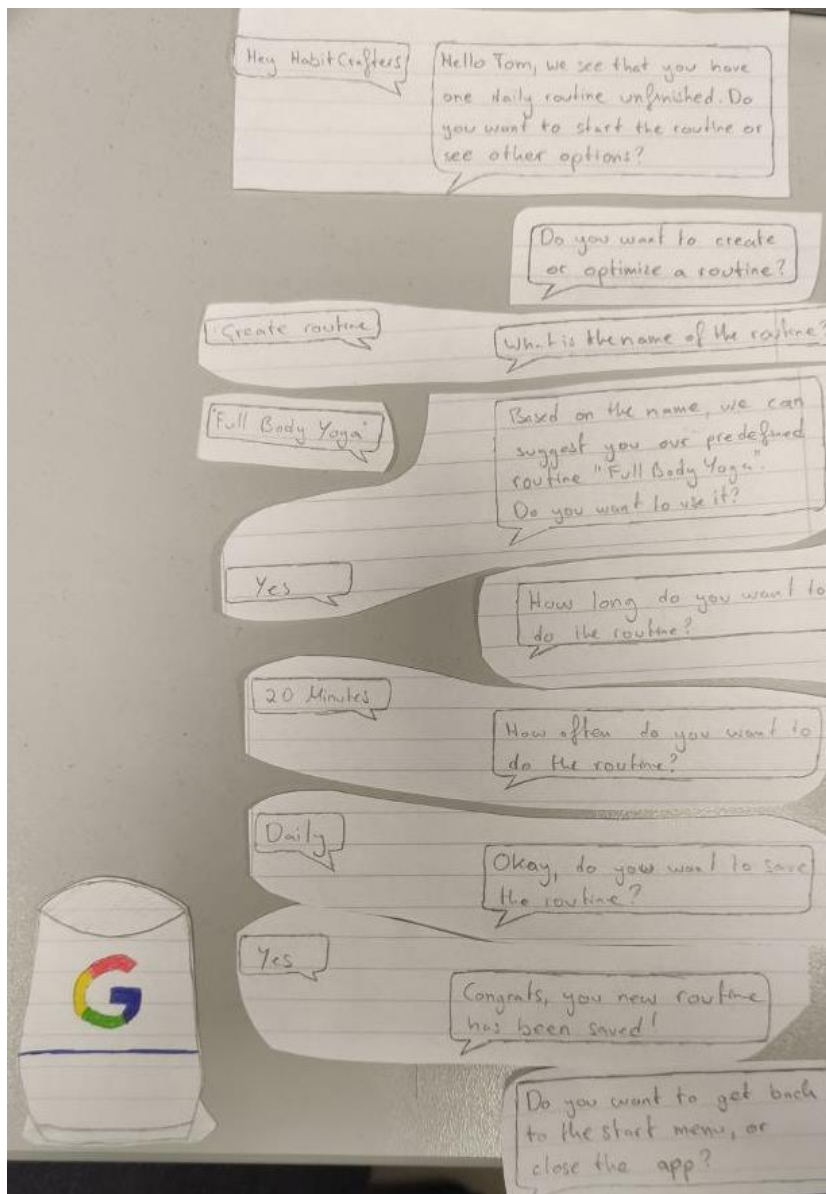
3. *H2* Match between system and the real world
   Where: continue or redo (phrase 5) [task 1]
   What: continue can be more specific like "continue with another exercise/activity"
   Why: user cannot immediately understand that it means continue with other exercise in your routine
   Severity: 2

TASK 2a

TASK 2a heuristic violations:

4. **H2** Match between system and the real world *(H5 Error prevention)*

    Where: search for routine (phrase 3) [task2a]
    What: instead of "what's the name of the routine?" can be used a more meaningful phrase like "what kind of activity you want to do?"
    Why: Since the system perform a search based on the kind of activity the original phrase can mislead the user to think that this is a name to assign to the routine to save (ex. user can say Morning instead of Yoga)→ more meaningful phrase can help prevent errors (H2,H5)
    Severity: 2

5. **HN** Non-heuristic issue

    Where: routine suggestion (phrase 4) [task 2a]
    What: Possibility to ask more details about routine
    Why: User may want to have more details or a description about what the routine comprehends
    Severity: 2

6. **H3** User control and freedom *(H7 Flexibility and efficiency of use)*

    Where: routine suggestion (phrase 4) [task 2a]
    What: Possibility to ask for next routine recommendation: if the suggested routine doesn't match user necessity, system can look for second match in the list extracted from matching algorithm
    Why: Allow pass to next suggestion gives more freedom (H3) and allow the user to avoid restart search (H7)
    Severity: 2

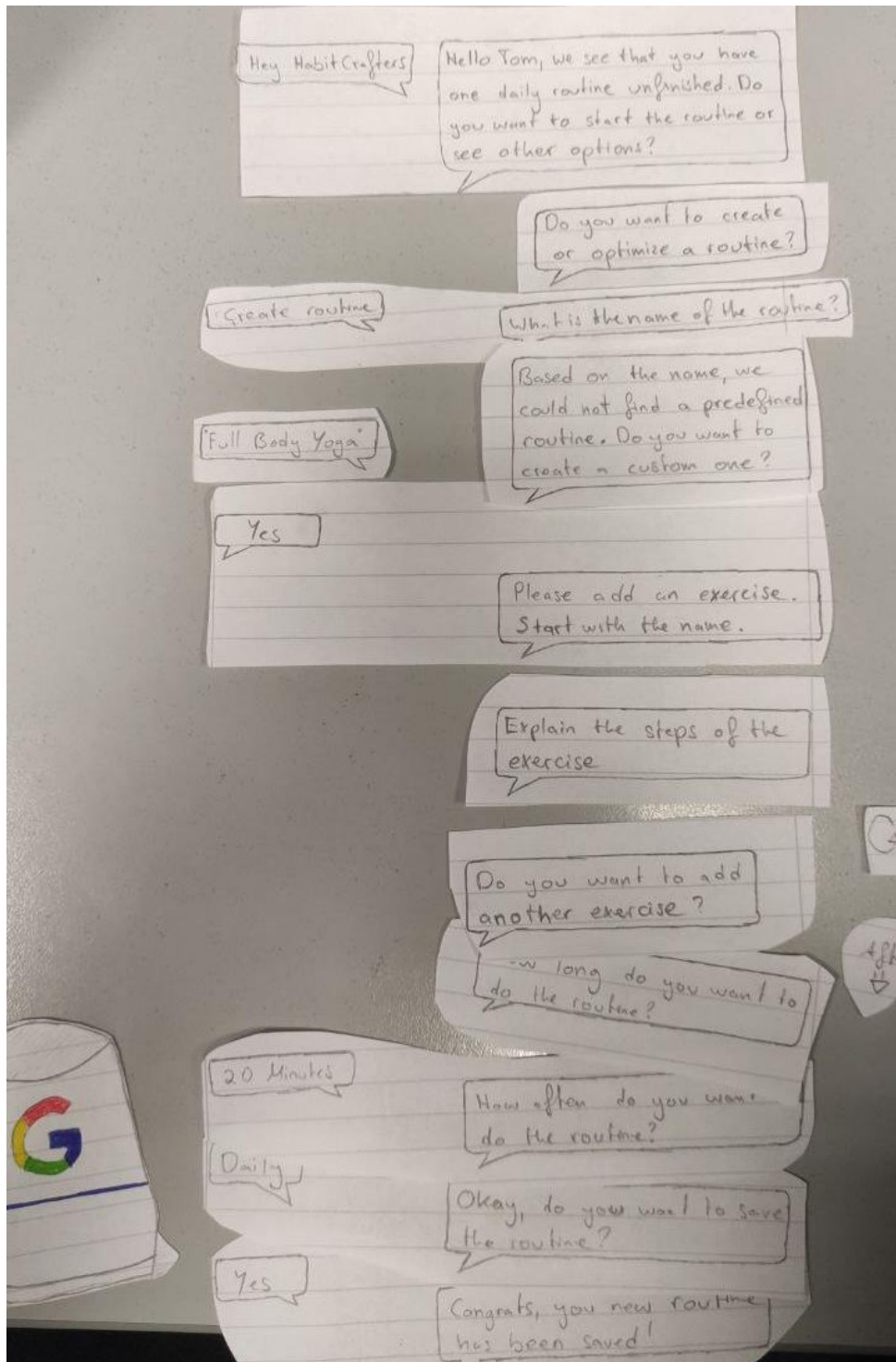7. **H9** Help users recognize, diagnose, and recover from errors

    Where: before "do you want save the routine" (phrase 7)) [task 2a]
    What: it is better to add a recap of what the system is going to save (name,duration,freq)
    Why: voice system can fail more frequently in recognizing speech, can be useful to give more feedback and possibility to recover from errors
    Severity: 1

TASK 2b

Hey HabitCrafters

Hello Tom, we see that you have one daily routine unfinished. Do you want to start the routine or see other options?

Do you want to create or optimize a routine?

Create routine

What is the name of the routine?

Based on the name, we could not find a predefined routine. Do you want to create a custom one?

'Full Body Yoga'

Yes

Please add an exercise. Start with the name.

Explain the steps of the exercise

Do you want to add another exercise?

...w long do you want to do the routine?

20 Minutes

How often do you want do the routine?

Daily

Okay, do you want to save the routine?

Yes

Congrats, you new routine has been saved!

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TASK 2b heuristic violations:

8. *H2* Match between system and the real world
   Where: Please add an exercise (phrase 5) [task 2b]
   What: Term exercise is too specific
   Why: From task 1 emerge that you can add "jounalism" that seem more in general an activity. I think it is better to use a general term like "activity" instead of "exercise"
   Severity: 1

9. *H2* Match between system and the real world
   Where: ask step of the exercise (phrase 6) [task 2b]
   What: Asking for step of exercise
   Why: Not all the activity can be divided in step (ex. journalism cannot) and the adding of step can confuse the user, instead I think it is better to ask for a description/guidance for the activity
   Severity: 1

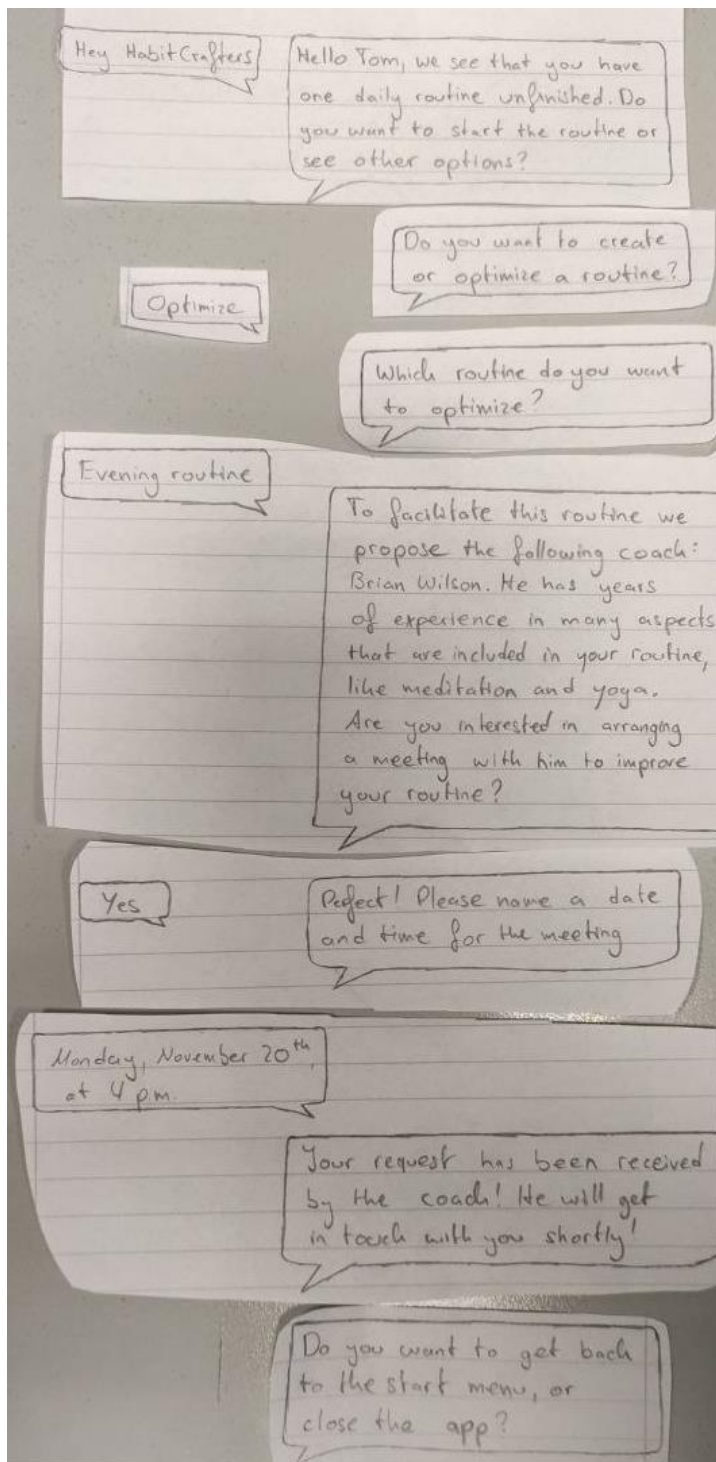10. *H9* Help users recognize, diagnose, and recover from errors
    Where: before "do you want to save the routine"(phrase 10) [task 2b]
    What: it is better to add a recap of what the system is going to save (name,duration,freq)
    Why: voice system can fail more frequently in recognizing speech, can be useful to give more feedback and possibility to recover from errors
    Severity: 2

TASK 3

Hey HabitCrafters

Hello Tom, we see that you have one daily routine unfinished. Do you want to start the routine or see other options?

Do you want to create or optimize a routine?

Optimize

Which routine do you want to optimize?

Evening routine

To facilitate this routine we propose the following coach: Brian Wilson. He has years of experience in many aspects that are included in your routine, like meditation and yoga. Are you interested in arranging a meeting with him to improve your routine?

Yes

Perfect! Please name a date and time for the meeting

Monday, November 20th, at 4 p.m.

Your request has been received by the coach! He will get in touch with you shortly!

Do you want to get back to the start menu, or close the app?

TASK 3 heuristic violations:

11.H3 User control and freedom *(H7 Flexibility and efficiency of use)*

  Where: person suggestion (phrase 4) [task 3]
  What: Possibility to ask for next person recommendation
  Why: Allow pass to next suggestion gives more freedom (H3) and allow the user to avoid restart search (H7)
  Severity: 2

GENERAL heuristic violations*:

12.H10 Help and documentation

  Where: At first app launch or when adding a routine(TASK 2a and 2b)
  What: Make sure that the user is told on basis of what the day for a certain routine is chosen, for example if I specify weekly does it start from today/tomorrow/when I have free time in my week
  Why: Maybe the user wants to select a day with free time to do a routine
  Severity: 2

missing part like edit routine, specify user free time and communication with coach are not evaluated since not present in prototype due to the fact that are not mandatory to complete the task.

Part V: Summary and Recommendations

Reported in the table below the total number of identified violations.

Heuristic	# violations
H1: Visibility of system status	0
H2: Match between system and the real world	5
H3: User control and freedom	4
H4: Consistency and standards	0
H5: Error prevention	0
H6: Recognition rather than recall	0
H7: Flexibility and efficiency of use	0
H8: Aesthetic and minimalist design	0
H9: Help users recognize, diagnose, and recover from errors	2
H10: Help and documentation	1
HN: Non-heuristic issue	1

GENERAL IMPRESSION: Overall, the interface is simple and easy to understand, there are no important heuristic violations. Most of the heuristic violations regard the possibility to add more desctiptive/clear term to help the user understand what the system "expect" as next user input phrase. Sometimes user lack of freedom or is not clear if he/she can change what he/she choose in previous step (the user can say "back" to go back as I understood, but the system should tell me that I can).

RECOMMENDATION AND ADVICE: Recommendation or advice are already provided into What and Why section of every specific issue. Fixing some issue can lead to other low severity heuristic violations, like providing recap of routine before saving can bring slowdown in system (H7) and less minimalist design(H8).