HUMAN COMPUTER INTERACTION

Project 3 – Evaluation

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TASK 1 (A) KEY QUESTIONS

1) How fast can you switch between different functions of your app?

2) How good does a new user handle the design of this app?

3) Which parts are already known by a user's, out of other apps?

4) How efficient does a user learn to do the tasks?

Tasks required: -

- Register as new user
- Fill your profile
- Navigate from source location to the nearest trail
- Look at the instructions for any exercise you want to do
- Watch a video for how to do it visually
- Use the fitness trail and do the exercise, then note it in the app
- Share your progress and results

TASK 1 (C) OBSERVATIONS

Fitness Trails Map: -
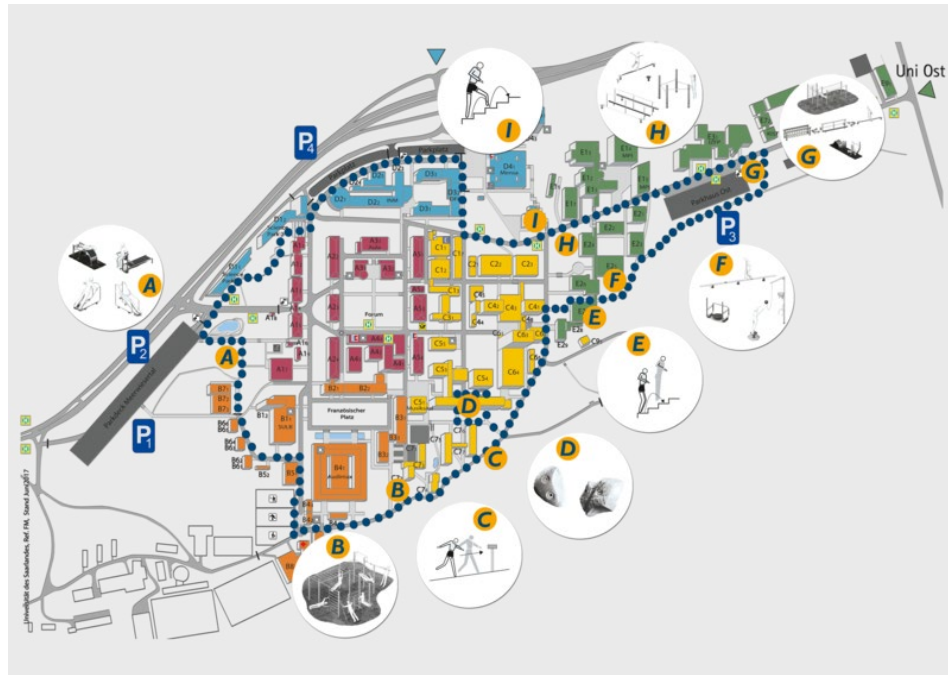
Participants' Table: -

ID	PARTICIPANT'S NAME	INVISTIGATOR'S NAME	OBSERVATION SITE
01	Osama Mowafy	Hassan Soliman	Fitness Trail (H)
02	Ashik Hyderi	Koushik Chowdhury	Fitness Trail (G)
03	Steven	Julian Janson	Fitness Trail (I)
04	Mohamed Taha	Hassan Soliman	Fitness Trail (H)

Observations Recording: -

- First, each participant will be a consent form to read and sign, then he/she will be given instructions to do a specific task using our proposed prototype.
- Second, after doing the task, each participant will be asked to go with us to Computer Science building and sit on a table to fill NASA TLX and our Overall Questionnaire.
- Third, each participant will be given a semi-structured interview of about 10 questions to be solved based on his/her experience with prototype.

TASK 1 (D) QUESTIONNAIRE TEMPLATE

Name: -

Age: -

Gender: -

- Male
- Female
- Other

Have you ever used any fitness related app ever?

- Yes
- No

Answer the following questions: -

SL	QUESTION	STRONGLY DISAGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	STRONGLY DSAGREE
01	Interface is friendly to use	-	-	-	-	-
02	Easy to learn the operation	-	-	-	-	-
03	Necessary Information is available	-	-	-	-	-
04	Easy to find the required Information	-	-	-	-	-
05	Designing of the Screens are good	-	-	-	-	-
06	Interface is not eye fatigue	-	-	-	-	-
07	Interface is not mentally demanding	-	-	-	-	-
08	Physically Easy	-	-	-	-	-
09	Good or bad	-	-	-	-	-
10	More effort is not required	-	-	-	-	-
11	I recommend this app to other	-	-	-	-	-

1) What do you think about this application?

2) What is your experience in terms of finding the fitness trail location and instructions by this application?

3) What is/are the most complex functionality of this application?

4) How this application motivates people to use fitness trail?

5) How can this application be more improved?

6) What are struggle that you face to use this application?

7) Do you have any other thoughts about the struggled issues?

8) Describe the things that you enjoyed when you were using this application?

9) What functionality should have been added?

10) What is your overall impression about this application? Do you recommend this app to other? If not, why?

PART I: Information Sheet

Introduction
- I am _____, a student at Saarland university. We are doing research on mobile touch interfaces as part of the Human Computer Interaction lecture. I am going to give you information and invite you to be part of this research. Before you decide, you can talk to anyone you feel comfortable with about the research.

- There may be some words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them of me or the principal investigator of the project, Hassan Soliman.

Purpose of the research and type of manipulation
- Purpose of the study is to evaluate the first iteration of the design process of a fitness trail application. It will help users navigate through the fitness trail and guide them to how to do the exercises through a smart phone touch interface mobile app.

Participant selection
- You have been invited to this study because you are representative of a group of users that we would like to be able to use our interface.

Voluntary Participation
- Your participation in this research is entirely voluntary. It is your choice whether to participate or not. You may change your mind later and stop participating even if you agreed earlier.

Procedures and Protocol
- First, you will be given instructions to do a specific task using our proposed prototype. It's a smart phone touch interface mobile app.
- Second, after doing it, you will be given a questionnaire on 5-step scale, from strongly disagree to strongly agree. It should be filled based on your experience with the prototype.
- Third, you will be given a semi-structured interview of about 10 questions to be solved based on your experience with prototype.

Duration
- The research takes place over about 1 hour.

Risks and Benefits
- We anticipate no risks from participating in the experiment. If you participate in the experiment, you will help us, the researchers conducting the study, to advance our understanding of whether the interface may be useful.

Reimbursements
- You will not be given any money or gifts to take part in this research. We do thank you, however, for your valuable time.

Confidentiality
- The data we collect from you will be made anonymous; your name will be replaced with a number known only to the person facilitating the experiment and the principal investigator.

Sharing the Results
- We will publish the results in order that other interested people may learn from our research. No confidential information will be shared.

Right to Refuse or Withdraw
- You do not have to take part in this research if you do not wish to do so. You may also stop participating in the research at any time you choose. It is your choice and all of your rights will still be respected.

Who to Contact?
- If you have any questions about the study at a later stage, please contact the principal investigator
- NAME: Hassan Soliman, ADDRESS: 9 Tilsiter Strasse, E-MAIL: s8hasoli@stud.uni-saarland.de

You can ask me any more questions about any part of the research study, if you wish to. Do you have any questions?

PART II: Certificate of Consent

- *I have read the foregoing information. I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research.*

Print Name of Participant: _____

Signature of Participant: _____

Date: _____
       Day/month/year

Statement by the researcher/person taking consent
- I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

 A copy of this ICF has been provided to the participant.

Print Name of person taking the consent: _____

Signature of person taking the consent: _____

Date: _____
       Day/month/year

Difficulties and Problems

- No review or feedback option is in the application.
- Individual navigation is required for individual Trail.
- Instruction text and instruction video should be in one option, not separately.
- There should be instruction photos with the instruction text.
- From the Questionnaire, qn. no. 9 is not clear because it is asking binary question but it has multiple option.

Adapt the study

- Create an account and login.
- Find the specific fitness trail location from the navigation option.
- Read the fitness instruction along with Videos.
- Follow the instruction photos.
- Do the exercise.
- Write a review/feedback of an exercise.
- Share you result.
- Log out.

Changes

- Review/Feedback option will be added in the next iteration.
- Navigation for individual trail option will be added in the next iteration.
- Instruction text and video will be in one option in the next iteration.
- Instruction photos will be added.
- From the Questionnaire, qn. no. 9 is fixed.

TASK 3 (A, B, C) CONDUCT THE STUDY

Anonymized Data Collection: -

- For each participant, it's attached his/her complete and anonymized raw data in a separate file.

Procedures Taken: -

1) They are given the Consent Form to read and sign before everything
2) They are given the instructions to do the required task
3) They are given NASA TLX questionnaire to fill
4) They are given an overall questionnaire to fill
5) They are given a semi-structured interview questions to answer

Statistics and Insights from Dataset: -

- NASA TLX form has 6 questions and every question has a range from 1 to 20 where 1 describes very low which is good for choosing our application and 20 describes very high which would be bad for choosing this application. The NASA TLX score for the 1st participant is 3 that is good.

- For the questionnaire, we have 11 questions, every question has a range from 1 to 5 where 1 describes strongly disagree which is bad for choosing our application, and 5 describes strongly agree which would is good for choosing this application, the average score for 1st participant is 3.91 out of 5, that is well enough to choose this application because 3.91 is close to 'Agree'.

- For Semi structured interview, it has 10 questions, we classified the answers whether it's positive or negative, so for the 1st participant we got 7, which means that we got 7 positive answers out of 10 answers which is good.

- We also recorded the time taken by each participant starting from the time at which they are given instructions to do the task, till they finish the required task, less is better.

- All scores for all participants can be found as follows: -

PARTICIPANT	NASA TLX SCORE (AVG.)	QUESTIONNAIRE (AVG.)	SEMI-STRUCTURED INTERVIEW	TIME TAKEN TO DO TASK (MIN)
1st	3	3.91	7	16
2nd	6.5	3.36	7	15
3rd	7	3.64	5	19
4th	6.67	3.55	6	13

- Now we calculated mean and stand deviation for each type of scores above as follows:

TYPE OF SCORE	MEAN	STANDARD DEVIATION
NASA TLX Score	5.8	1.87
Questionnaire	3.62	0.23
Semi-structured Interview	6.25	0.96
Time taken to do Task	15.75	2.5

- According to above table, we can say that the scores are pretty good (similar explanation like 1st participant) for each participant. We can say that the application is well designed according to study.

1)   How fast can you switch between different functions of your app?

  -     You can switch the functions with the drop-down menu in all screens. I guess it's probably the best solution, and an easy way for the user. So, no user marked this as bad.

2)   How good does a new user handle the design of this app?

  -     The design is commonly used in a lot of smaller apps, so the user doesn't saw this as something new.

3)   Which parts are already known by a user's, out of other apps?

  -     We used a lot of designs which you already saw in other applications, so a user should handle all the functions well.

4)   How efficient does a user learn to do the tasks?

  -     A user learns the parts via video, as efficient as a user can learn this, without further things or people who teach him.

- What do you think about this application?

  o The overall feedback here was that the design is boring but the screens are well sorted

- What is your experience in terms of finding the fitness trail location and instructions by this application?

  o This one was nice, but some advice was that the user should choose from a drop-down menu

- What is/are the most complex functionality of this application?

  o The user struggled here with the progress

- How this application motivates people to use fitness trail?

  o The motivation with this app comes with the sharing with others to compare so actually the competition aspect

- How can this application be more improved?

  o The main aspect here was to make the design more interesting and not that generic

- What are struggle that you face to use this application?

  o Mostly no struggle, but one mentioned that if you go back, you need to go through all screens that you clicked before, which is not nice for the user

- Do you have any other thoughts about the struggled issues?

  o Shorter path back to the home screen should solve this problem

- Describe the things that you enjoyed when you were using this application?

  o Most user were good with the idea of videos, other were fine with the simple design

- What functionality should have been added?

  o Some sort of further fitness tracking was the overall hint

- What is your overall impression about this application? Do you recommend this app to other? If not, why?

  o All of them had an impression of being good or above, and would recommend it