

## Exercise 1 - Data gathering techniques (1 + 1 = 2 points)

For each of the following scenarios name the primary data gathering technique(s) you would use to reach the respective goal and justify your answer (about 3-4 sentences).

1. You want to improve the situation for office workers of a specific company. Their work processes shall be simplified and supported by a company wide communication platform. You start with no insights into the workers' current situation.
2. You want to introduce a navigation system to minimize warehouse workers' walking distances.

## Exercise 2 - Establishing requirements (1.5 + 1.5 + 1 + 2 = 6 points)

1. Why is it crucial to establish requirements? (state three reasons)
2. Why is it a highly iterative process? (Restrict yourself to 100 words max)
3. Explain the difference between functional and non-functional requirements.
4. Indicate for each of the following statements whether it is a valid requirement. If not, explain why. Valid requirements are specific, unambiguous, clear and it should be possible to tell when they are fulfilled.
  - (a) The program should install very fast.
  - (b) Green should be the only color used in the UI.
  - (c) The program must not use any sound.
  - (d) The system has to be appropriate for children.

## Exercise 3 - Visual search (1.5 points)

Is the following statement correct: *In Visual Search it is usually faster to find a non-salient stimulus, than to state that it is absent.*? Justify your answer (a few sentences should be enough!).

## Exercise 4 - Recognition vs. recall (3.5 points)

We have learned that "recognition is better than recalling". Provide an example for recognition and one for recall (don't use the examples from the lecture). Name four implications for the design process of a product or system.

## Exercise 5 - Perceptual illusions (2 + 2 + 3 = 7 points)

Using the internet and scholarly articles, find out about the perceptual illusion called "cutaneous rabbit".

1. Briefly explain how to evoke this illusion on someone highlighting the difference between physical stimulus and perception. (Restrict your answer to 5 sentences).

2. Using what you learned through literature, select two regions of the body you would assume this illusion will work, and justify your selection (two sentences).
3. Try the illusion with at least three (3) of your friends at the two regions you selected, and report how many of them felt the illusion and at which region. Specify if one region is better suited than the other based on your experiment results.

## Instructions for submissions:

- You can upload your answers multiple times until November, 30<sup>th</sup> 2017 - 12pm. The most recent version will count. You cannot change your answer after November, 30<sup>th</sup> 2017 - 12pm.
- If one of your group members are not contributing to the exercises, you must inform your tutor.
- Please name your submissions according to the following scheme:  
HCI\_exercise\_XX\_GGG.pdf  
XX = exercise number (e.g. 03)  
GGG = group number (e.g. M01)

Hand-in until November, 30 <sup>th</sup> 2017 - 12pm as PDF via Moodle ( <a href="https://hci-lecture.cs.uni-saarland.de">https://hci-lecture.cs.uni-saarland.de</a> )
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